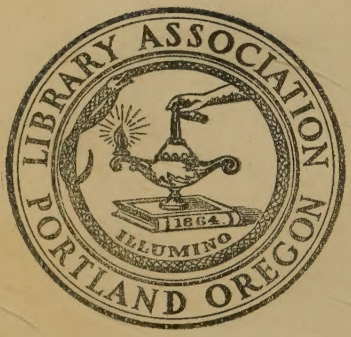
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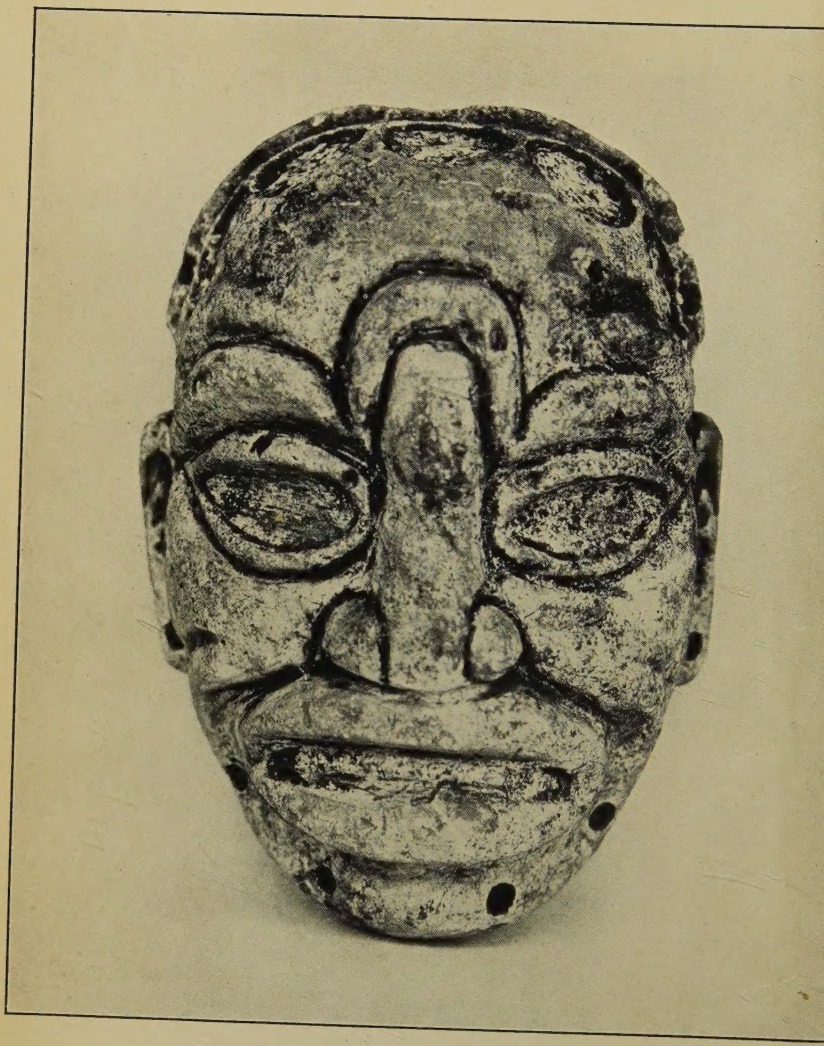

LIMESTONE HEAD; KNOWN AS THE "TALKING HEAD"

Frontispiece]

[*See p.* 165

DISCOVERIES AND ADVENTURES IN CENTRAL AMERICA

BY

THOMAS GANN

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INTRODUCTION

The history of British Field Archæology is, in the main, the history of individual enterprise. The national museums of England are, as regards scope and richness of material combined, the finest in the world; but the collections which they enshrine have, for the most part, been amassed by private enthusiasts, working without official support or even encouragement. We have had the good fortune, as a country, to produce so many sons blessed (or cursed) with the enquiring spirit, who have wandered in far places for the sheer joy of "finding out," and at the same time have recorded their experiences and discoveries. Exploration is one thing, but recording is something quite different. The excitement of the chase will sustain the average enthusiast through the fatigues of bush-travel or excavation work, but it requires an even sterner quality of persistence, at the end of the day, to settle down to the meticulous writing-up of the day's experiences and results amid the rather unrestful surroundings of a fly-infested forest. Moreover, if the record is to be of real value and interest—something more than a mere dry record of events—it requires interpretation and comment, and this involves the personal qualities of vision and humour, supplemented by a careful study of earlier literature. I can claim Gann as a friend of long standing, and I would not do him the disservice of fulsome compliments, but I know that his written work is

excellent and entertaining narrative, based on sheer hard work, physical and mental.

Fate brought Gann to British Honduras as a young man, just after he had qualified for the medical profession. The life of a medical officer in an undeveloped tropical colony is a busy one, but Gann found time, in his spare moments, to carry out many journeys in the bush in search of Maya ruins, and these explorations he has pursued more intensively since his retirement from the post of P.M.O. at Belize, the capital of the colony. His long experience of local conditions, his life-long study of Central American Archæology (especially from the practical side), and his gift of lively narrative, give his books a value which is appreciated equally by the archæologist and the man in the street. And the secret of their "aliveness" is that he writes every day, when impressions are fresh. So the reader can picture Gann (as I have often seen him) sitting in a bush-clearing, in a deck-chair (his constant companion, which I think he must have inherited from his great-grandfather), with the fire-beetles flashing around and the sand-flies taking their toll, writing a chapter of his book after a day spent in clambering over mounds and pyramids. A couple of eggs and tea (often made with soda-water in a waterless camp) is enough for Gann ; and the only occasion on which Gann gets really ruffled is when the tea does not come up to time. The only difference between Gann in the bush and Gann in civilisation is that the absence of tea as a disturbing effect is replaced by a succession of bad bridge-hands. One knows a man superficially under civilised conditions ; the close association of a bush-camp often brings out another side. I hope to travel again with

Gann in British Honduras in the course of the archæological exploration of the colony, now a matter of mutual arrangement between the Colonial Government and the British Museum.

Thos. A. Joyce,
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DISCOVERIES AND ADVENTURES IN CENTRAL AMERICA

CHAPTER I

Arrival in Belize—A legacy for British Honduras—An ideal place to live in—Shark fishing, and uses made of different parts of the shark—Waters swarming with fish—Catching a corpse—I hear of a new ruined city in the south of the Colony—Arrive in Punta Gorda—Carib women try to imitate Maya girls—We set out for the ruins—We encounter an old rivercomber—A diet of lizard's eggs and liver—A free life, and a solitary death—A drove of quashes—Arrival at Flour Camp—A plucky Indian—Wonderful protective colouring—Arrival at ruins—A narrow escape for me—A narrow escape for one of the men—The Indians think their old gods are offended—A very important site—Only one gun in camp—Visit from a cow tapir and her calf—A mixed barrel of salted game—Indians' distrust of banknotes—A dirty trick.

I ARRIVED in Belize, the capital of British Honduras, from Jamaica, by the Canadian Government Mercantile Marine S.S. *Fisher*, on November 16th, 1927. In operating this line from Canada to the West Indies the Canadian Government, endeavouring to make the trip pleasant for their passengers, have to contend against the rapid and tremendous change in the temperature between the beginning and end of the voyage. Starting from Montreal with a temperature perhaps 20 degrees below, the radiators all on, the ports closed, and the proximity of the engine-room the most comfortable place in the ship, one arrives in Kingston, to find the mercury standing at 90 degrees in the shade, and the passenger quarters, constructed primarily for a cold climate, giving a fair imitation of a floating oven, where, on the iron plates covering the

engine-room, eggs could be comfortably fried at any hour between 10 a.m. and 4 p.m.

British Honduras has recently had a considerable windfall, in the form of a legacy, amounting to approximately a million and a half dollars, bequeathed it by the late Baron Bliss.

This would not bulk as a very large sum in England, but when judged by small colony standards it represents a vast fortune, for it exceeds the total revenue of the Colony for an entire year ; it would easily pay off all its indebtedness, and, if applied in that comfortable way, would support in idleness and moderate comfort the entire population of ten thousand families, more or less, for nearly a year—for neither their wages nor their standard of living are, from an English point of view, very high.

Why should they be, indeed, in a climate where Nature undertakes to dry-nurse all her children, where a comfortable house can be put up by half a dozen men in a couple of days, from material provided by her, practically at the back door ; where the fertile soil only needs scratching with a machete to yield abundant crops of yam, plantain, bananas, oranges, mangoes, and a hundred other fruits and vegetables ; where the delightful climate renders clothes rather a question of decency than protection against the weather ; where one has only to throw a hook into the river, or cast a net into the sea, to get as many fine fish as one needs, and, when a fish diet begins to pall, take an early morning stroll into the bush and bring in a peccary, an antelope, a gibnut, a few brace of pigeons or parrots, or whatever else the gods may see fit to send for the pot.

When I returned to England in June, I left my man Amadeo Esquivel, commonly known as Muddy, a small motor-boat, and a number of large-mesh nets, for he was

anxious to try shark fishing, and see whether it could be made a commercial success, as it has been, apparently, in the Bahamas, and along the Florida coast. The shark, indeed, once out of its native element, and properly dealt with, has become one of the most valuable fish that swims. Its hide is transformed into shagreen; its immense liver produces a fair imitation of cod liver oil; its fins, dried, appeal strongly to the Chinese palate as a table delicacy, and fetch no less than a dollar and a half a pound; its dried flesh, formerly used as a fertiliser, now sells at the price of beef, while even its backbone and teeth are not rejected, as the former makes an excellent cane, and the latter are greatly in request as watch-charms and pendants, much as one sees elks' teeth draped prominently upon members of the Elks' Order in the U.S.A. I have never, it is true, heard of a "Shark" Order, though I have come across more than one charter member in good standing of that ancient corporation not a hundred miles from the financial district of "Little Old New York."

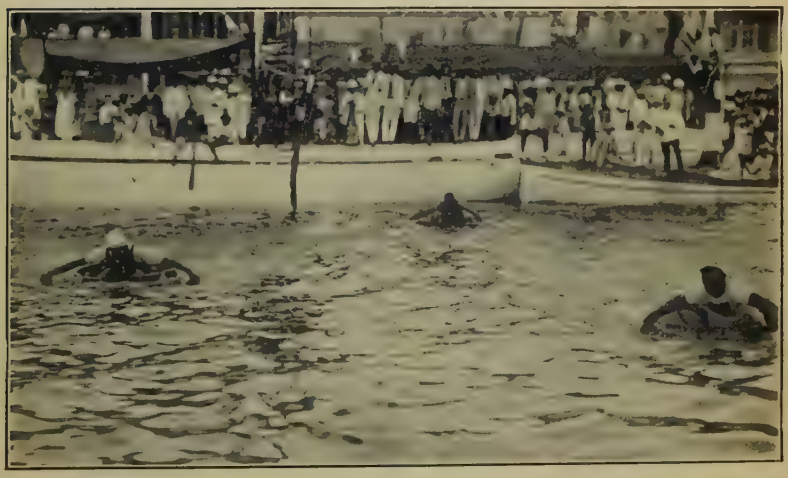
Muddy did very well with his venture during my absence, catching large numbers of sharks, whose odoriferous fins could appeal only to palates capable of appreciating vintage eggs laid down by thoughtful ancestors. In addition to these, however, he captured a series of extraordinarily mixed "bags," containing tarpon, alligators, immense sting-ray, nurse-sharks, hammer-heads, and a few manatee, or sea-cows. The skins of these latter, which are over an inch thick, were dispatched to the enterprising merchants who purchased the various shark products, and at the time of writing they are endeavouring to find some economic use for them, apparently hating to see anything wasted.

The second day after my arrival I determined to visit

the nets, about a quarter of a mile of which were set in the shallow estuary of the Belize River, only a few miles from the town. The shallow water is smooth and warm here, surrounded as it is on all sides by mangrove cays, or islets, and mudbanks. It literally swarms with fish: mullet, stone bass, snapper, and other small varieties—which come down to feed on the rich harvest of coco-plums, wild figs, molluscs, and small crustaceans constantly swept down by the sluggish waters of the Mopan River—are found in incredible numbers, and naturally those who prey are also present—tiger-shark, tarpon, hammer-head, alligator from the water; pelican, fish-hawk, frigate-bird, and gull from the air; while man in his dug-out, or "pough-pough"—the local name for a small motor-boat—pursues alike both preyer and preyed upon.

On arriving near the nets we noticed a curious, long, black, shiny object floating at the top of one. Greatly excited, Muddy shouted: "What luck, a manatee! Just what you wanted, Doctor, and there must be a big fish in as well, for the corks are sunk for twenty yards." I had my doubts, but said nothing. As we approached the floating, black object, however, a sickening odour of decay pervaded more and more the hot, moist atmosphere, till on arrival at the net it was almost insupportable. We had caught the corpse of a very old and stark naked negro, evidently carried down by the river and entangled in the net. He had probably been dead for many days, and was distended with the gases of putrefaction, which gave him an extraordinary resemblance to the round, fat, shiny back of a manatee, as he was floating high, his arms, legs, and face submerged. We discovered later that the old man had left his little clearing a few miles up the river, several days before, paddling a dug-out full of fowls and

Monster washed ashore at Ambergris Cay



Belize. A Popular Event at the Regatta

turkeys to sell in Belize, where, as Christmas approached, a good market developed for them. The dug-out, with the fowls, was discovered some days later, stranded on a mangrove cay, but how the owner came to be naked will probably for ever remain a mystery, as, when he left his plantation, he was clad in trousers and shirt, neither of which were ever discovered.

On disentangling the corpse, and raising the net, we found one of the largest saw-fish I have ever seen enmeshed in it. He was fighting mad, and made a vicious side-sweep with his saw at the side of the launch, which luckily missed, and the next minute his tiny brain was smashed in with an axe, his saw cut off with a machete, as it was almost impossible to disentangle it from the net, his valuable fins cut off, and his corpse turned adrift.

It was curious that this great fish should have been taken just by the side of the corpse, and I cannot quite acquit it of man-eating intent. If it had been a tiger-shark or an alligator, I should not have been in the least surprised, as to both of them a floating human corpse is a gift from the gods, but I have always regarded the saw-fish as a clean feeder, who invariably did his own fishing with the very efficient weapons provided by Nature, ate his meals fresh, and never descended to scavenging.

Soon after my arrival in Belize I was told of the discovery of a new ruined Maya site, near the head-waters of the Mojo River, in the extreme south-west corner of the Colony, and so close to the Guatemala frontier that no one knew definitely upon which side of it the ruins were situated.

These ruins had been found buried, in this hitherto unexplored country, in July 1927, by Mr. Mason, a mahogany contractor, hunting for that wood in the

vicinity, and had later been visited by Mr. Eric Thompson. They were said to contain a number of large sculptured monoliths, recording Maya dates, such as had never before been found in the Colony, and were not supposed to exist there. I at once made up my mind to visit these ruins as soon as possible, for, if even a quarter of the stories I heard about them proved true, they were bound to be of the utmost archæological importance. Before setting out, however, I had to visit the city of Guatemala, there to inspect a jade head, said to have been recently discovered at the ruins of Copan, in Honduras.

This trip accomplished, I arrived, on December 11th, 1927, at Punta Gorda, the southernmost settlement in the Colony, and the jumping-off place for the ruins. The greater part of the population of the town is composed of Caribs, those curious black sea-rovers, who, adventuring forth from the Amazon in their great dug-out canoes, succeeded, before the arrival of Columbus, in effecting a footing in, and driving out the natives from, the West Indian Island as far east as Cuba.

On the day after my arrival a fiesta was in progress amongst these people, and for some reason or another the women had adopted the Maya festal costume. It was somewhat startling to see brawny, black, prognathous jawed, woolly headed Carib maidens arrayed in beautifully embroidered *huipils*—long, loose, sleeveless jackets—and *piks*, or skirts, with elaborate necklaces of beads and gold ornaments, such as one usually associates with the gentle, pretty Maya girls. The Caribs could not wear their hair in the long ribbon-decorated plaits hanging down the back, such as are affected by the Maya, for their stiff, black, kinky wool did not lend itself to such a coiffeur, but they did their best to copy the model, by dividing it into a number of little twists, somewhat

HEAD OF A MANATEE, OR MERMAID, CAPTURED NEAR BELIZE

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resembling pigs' tails, and tying each of these with bows of divers-coloured ribbons.

On December 12th we left Punta Gorda, having obtained, through the kindness of Mr. Lee Pearce, a motor-launch and a large 30-foot dug-out of Santa Maria wood, commonly known as emery, for our trip up the Mojo River, as far as its waters were navigable. The party consisted of myself, my faithful assistant, Amadeo Esquivel, who has accompanied me all over Central America during the past twenty years in search of ruins, my boy Andres, and two good river-men and polers supplied by Mr. Pearce.

The launch towed us for four miles south, along the flat, mangrove-covered shore of the mainland, and then up the equally uninteresting mangrove-bordered lower reaches of the Mojo River, to the first falls, where she left us to return to Punta Gorda, and we took to the dug-out for the remainder of our journey up the stream.

Above the falls the mangrove ceased, and the river ran through a limestone country, where the banks were fringed with bamboo, wild cotton, cuhoon-palm, and cedar.

As dusk was approaching, we arrived at Roaring Creek Mouth, where we determined to camp for the night. The land here forms a high, pointed promontory, dividing the Mojo River from its affluent Roaring Creek. Camped upon this, we discovered an ancient black man, his entire possessions consisting, apparently, of a small iron pot and a little *pataqui*, or travelling-basket. He was camped under a flimsy thatch of palm-leaves, and, as we arrived, was engaged in packing gory masses of iguana eggs and liver into the pot, which was supported on three stones over a stick fire. The old fellow was evidently a bit of a gourmet, for he had thrown the carcasses away, retaining

only the tit-bits for his supper. He had a crazy old dug-out tied to the bank, and was evidently a rivercomber, if one may coin the word, paddling up and down the almost uninhabited reaches of this lonely river, picking up such food as Nature sent him, sleeping by night beneath a shelter made from a few palm-leaves, cut in ten minutes anywhere in the bush—yet, apparently, without a care in life. Doubtless he would die solitary, as he had lived, of snake-bite, fever, dysentery, or one of the innumerable forms of death which await the poorly equipped, solitary traveller in the jungle, and serve as fertiliser for the immemorial bush. Yet, he was one of the most cheerful optimists I have ever encountered.

As I was writing my notes that night, outside my tent, by the light of a gasoline lamp, I heard a rustling amongst the fronds of the giant cuhoon-palm beneath which I sat, and, looking up, saw peering down at me the sharp little eyes of a pisote, or quash, that curious little sharp-nosed, long-tailed relative of the bear family which travels the tree-tops in droves, seldom descending to the ground. With a spring of incredible agility, it launched itself into space, and, clearing the brightly lighted area above my gasoline lantern, landed on the branches of a great wild cotton-tree. As if satisfied at the result of their leader's leap, half a dozen more of the same drove followed in quick succession. The wild cotton was evidently their home, from which my bright light had kept them, and I could hear them twittering indignantly for some time, till they went to sleep.

Next morning we made an early start in a downpour of rain. Muddy, in descending the almost perpendicular side of the clay bank, turned round to me, closely following him, and warned, "Look out, Doctor, this bank is very slippery." Hardly were the words out of his

mouth when his feet slid from under him, and, his hand coming heavily down on the razor-like edge of a small, cut palm-stem, he received a nasty jagged wound which almost penetrated the palm.

We poled up innumerable falls and runs, but, as there was a good head of water in the river, seldom had to disembark for the purpose of hauling the dug-out over.

The river runs here through limestone formation, and the scenery is in places magnificent. The lower part of the banks is faced by immense sombre grey limestone boulders, above which rise almost perpendicular clay banks covered with every variety of fern and moss, the whole topped by gigantic palm, cedar, and wild cotton-trees, supporting great masses of gorgeous flowered orchids, creepers, and air-plants. Here and there little creeks cascaded with a pleasant musical tinkle down the limestone cliffs to join the river, some of horseshoe shape suggesting miniature Niagaras.

We passed great numbers of iguanas, the hideous, crested, yellow males sitting fearlessly on thin tree-limbs, as we passed within a few yards of them, though the smaller green females were more shy, and promptly dived into the water when they saw us approaching, as if they realised the danger to themselves of the precious burden of eggs which they carry at this time of the year, an irresistible attraction alike to Carib, creole, or Indian.

The extraordinary tameness of these great lizards was a sure indication of the absence of man from the waters of this river, for, as a rule, they are exceedingly wary, and difficult to approach. In the early afternoon we reached Flour Camp, a collection of half a dozen old palm-leaf shelters, used by mahogany cutters during the past season. They were now rapidly falling to decay, but, nevertheless, contained the usual quota of fleas (as we

found later to our cost), which must have regarded our arrival as a perfect godsend.

From here I sent out to a little Indian village, buried in the depths of the bush, and succeeded in hiring three Kekchi Indians to help carry our baggage to the ruins on the following day. I slept well that night, untroubled by mosquitoes and sand-flies, and soothed by the gentle roar of a little fall just opposite my sleeping place, but fifty feet beneath it.

Next morning, the view from our camp on the high river-bank was entrancing. The jade-green ribbon of river, broken only by a band of white falls, cut its way through the darker shades of green of the surrounding bush, which towered above it, in places for three hundred feet.

I made an early start with Andres and our two dug-out men, leaving Muddy behind to follow with the Indians as soon as they turned up. About noon we halted for lunch, and soon Muddy caught us up with two of our Kekchi. After lunch we waited for the third *cargadero*, and as he did not appear, I sent Andres back to see what had become of him. Before long they both appeared, the unfortunate Indian staggering under his load, which had to be taken from his back, as he was too weak to deposit it on the ground himself. It turned out that the poor fellow had been attacked by malaria on the trail, but still staggered gamely on under his heavy burden, till he caught up with us. This I considered an act of extraordinary pluck and endurance, for, walking a slippery trail, ankle-deep in sticky mud, with innumerable small stony hills to cross, even when unencumbered, is no light task, but when heavily weighted, and suffering from a smart go of malaria, it was nothing short of heroic. A shot of quinine and rum was the

only remedy to meet his case, and the greater part of his load was distributed amongst the other men.

Owing to this delay, combined with the awful nature of the trail, and a heavy downpour of rain which accompanied us most of the way, we had not reached our appointed camping-place when dusk came on, so camped in the bush by the side of a small stream. On our way we passed immense masses, ridges, and cliffs of limestone, in many of which openings were to be seen, and, as the whole country around is practically unexplored, interesting finds should be made in the caves with which the limestone formation is sure to be honeycombed.

As we came up the Mojo River, I had noticed large numbers of long yellow-shelled molluscs, with green tips to their shells, adherent to the yellow rocks on which grew small green plants, and, in crossing the little creeks on our march, I observed brown-shelled molluscs with yellow tips to their shells, adherent to brownish fragments of dead wood, on which were scattered yellow spots, in both instances providing them with a wonderful protective colouring.

Next morning, early, we reached a mahogany camp known as Joventud, or "Youth," and, crossing the river here in a small dug-out, made our way to the ruins, distant about a mile and a half, along an abominably bad hilly trail, ankle-deep in mud.

On arrival, however, the sight which met my eyes more than compensated for all the toil and trouble of this abominable journey—a mere pleasure trip in the dry season, but at the end of the rains a very arduous undertaking. There, buried in the depths of the primæval forest, just as its inhabitants had left it some fifteen centuries ago, was a most beautiful little Maya Old Empire site, consisting of a plaza surrounded by six ruined

temples, and containing at least fifteen stelæ, upon which were recorded the dates of their erection.

That night, as I was seated in my chair writing up my notes, I heard a tremendous crash behind me, and found that a great dead limb, weighted with an immense air-plant, had fallen from a height of fifty feet or so, within three feet of my back. The entire mass weighed perhaps forty or fifty pounds, and had it fallen upon me these records would not have been written.

Next morning my seven men started work early, some at turning over the larger monoliths with jacks and levers, to obtain a view of the under side, others at cleaning the small stelæ upon which inscriptions were to be seen, for photographic purposes.

One of the latter, which I shall describe more in detail later on as stela O, was broken into two almost equal pieces, lying several yards apart upon the side of a great mound of stone and earth—all that remained of the main temple of the group—a circumstance exceedingly difficult to account for, as these stelæ are usually broken or knocked down by the fall of giant trees, throughout the centuries, and consequently their pieces are almost always found in close juxtaposition, so how the two pieces of this monolith came to be so widely separated I am unable to imagine.

I brought both fragments down into the main plaza to be photographed, leaning the lower one against a tree, and supporting the upper one upon it, with the aid of stones and stout sticks. As soon as this was accomplished, the men started to turn over another stela close at hand.

Fortunately, I stood at gaze in front of the shored-up one, for, as I looked, I saw it totter, and, realising what was about to happen, shouted to one of the men who

was standing, with his back turned, right behind it. I was just in time, for as he jumped the upper fragment, weighing perhaps one hundred pounds, fell with a crash upon the spot where he had been standing a moment before, missing him by inches. It was a curious coincidence that two of us should have had such narrow escapes during our first two days at the ruins, and almost looked as if the old gods resented our presence at their ancient sanctuary.

I imagine my Indians were not at all happy over the coincidences, for they told Muddy that they intended to leave two days before their time was up, giving as an excuse the fact that they had not brought sufficient tortillas, or corn-cake, with them—a poor one under the circumstances, for I had seen each of them carrying a bundle of food sufficient for at least twice the time they had been engaged for.

This site must have been one of extraordinary importance to account for the presence of such a large number of stelæ, many of them of exquisite workmanship, and no doubt the surrounding lands were densely populated some fifteen centuries ago. This may, indeed, have been the sacred city of the people of Lubaantun, and other similar sites in the south of British Honduras, where, notwithstanding the size and grandeur of the stone structures, and the obvious density of the ancient population, not a single dated monument, such as the Maya erected every twenty years, to record the events which had occurred during that period, has, up to now, been found. It forms, in fact, a virgin site, absolutely unexplored and unexploited, of the great period of the Old Empire, and affords a wonderful opportunity for the intensive study of the most interesting period of the greatest aboriginal civilisation ever evolved in the New World. Unlike the

great Maya cities of Guatemala and Mexico, it is small and compact, and its thorough exploration and excavation could be carried out at a comparatively small cost.

Most important of all, it is the only site of the kind in British territory, and it is devoutly to be hoped that complete excavation may be undertaken by some British institution, and that some of its magnificent stelæ may find a permanent home in our national museum.

We had but a single gun amongst the whole outfit, as I discourage guns amongst the labourers, for, on the excuse of getting meat for the party, they are very apt to stroll off into the bush about daybreak, and not return till half the working day is over.

Our single "fusil" resembled an ancient section of gas-pipe, and leaked so badly at the breech when fired, and kicked so strenuously, that even the owner felt no enthusiasm about using it, and the other men would not touch it. I was rather sorry, on the second night at the ruins, that I had not brought any kind of firearm, as some animal of considerable size was prowling around the outside of my tent, in the early hours of the morning, possibly after a drove of quash, which I heard in the trees over my head, before going to sleep, but also, possibly, as I could not help thinking in those nervous hours which precede the dawn, after me. In the morning, however, my fears were shown to be entirely uncalled for, as there, in the soft soil near my tent, were the freshly-made tracks of a large cow tapir accompanied by a half-grown youngster. It was just as well, perhaps, that I had not had a gun, for, though these animals are as a rule retiring and inoffensive to the last degree, a cow, when accompanied by her young, will fight like a demon to protect it, and even take the initiative against anyone she may regard as a possible source of danger to her calf.

I left the ruins on December 20th with the intention of reporting their existence to the British Museum authorities, and, if possible, undertaking a further expedition there, on a slightly more ambitious scale, early in 1928.

On our way through Joventud Camp, we encountered the captain, who in a short time had accumulated a pork-barrel full of the game which had fallen to his gun and been salted. He intended sending this down, if he ever got an opportunity, as a present to his wife. I don't know how it turned out, but, as deer, wild hog, armadillo, lizard, gibnut, and corassow were all salted down together, the flavour must, at least, have been novel. I once had an old labourer at my coco-nut plantation, who used to salt down in one barrel everything he killed, including deer, pig, shark, tarpon, and manatee. I never tasted the mixture, but the smell from the open barrel was plainly discernible fifty yards to leeward ; still, the old man himself, who must have had the stomach of a vulture, ate it without any apparent ill effect.

We hoped to get corn, chickens, and eggs from the Machaca Indians, on our way down, but unfortunately they were very short of provisions, and our men at the ruins, who also acted as carriers, had been living on a straight diet of corn-cake, supplemented only by a little chilli pepper as an antispasmodic. The old Indian who brought their food up to them from the village had a profile which might have come from one of the stelæ, while his son appeared to be of the common Guatemala hill Indian type. We parted with our Indians at Flour Camp, and paid them in silver. If one gives them cheques, they regard them as banknotes, to be passed from hand to hand indefinitely, with the result that, six months after leaving the drawer, they may turn up at the

bank dirty, frayed, stained scraps of paper. They distrust banknotes now, as last year some "Unspeakable Turk," or Turkish pedlar, got off a lot of Guatemala paper—value 2*d.* to the dollar—on them, as good British Honduras money. I do not think it would be healthy for that Turk to return to Machaca. From Flour Camp we made an uneventful trip by dug-out to Punta Gorda, and thence to Belize.

CHAPTER II

We start for Benque Viejo caves—Our vast outfit—Mixed passengers—We sacrifice to the Rain God at Roaring Creek—Arrival at Benque Viejo—A love-lorn cook—Difficulty in getting labour—How did the inhabitants of the Old Empire cities grow sufficient corn for their populations? *Milpas escondidas*—Arrival at cave—Cave-earth and its contents—Sanctuary and altar cut in the living rock within the cave—Bats as ghosts—A beautiful underground chamber—A beautiful stalagmitic veil—Method of formation of cave—We descend a well-like hole, and reach another chamber—Discovery of great cache of ancient pottery—Cooking-pots, food-pots, water-jars, etc.—Find a vase for preservation of new corn *atole*—Method of preservation in Yucatan—A whale drawn on a piece of pottery—Probable use of the cave, and date of its occupancy—Absence of petroglyphs.

On January 13th, 1928, accompanied by Eric Thompson of the Chicago Field Museum, I left Belize for Benque Viejo, the westernmost settlement of the Colony, almost on the Guatemala frontier. My object was to explore some limestone caves which Joyce and myself had passed in the previous year, and to dig out a few mounds in their vicinity. Thompson was out for Maya objects of any kind, for the Field Museum, whose Central American section is not very well represented. We had engaged the whole of the accommodation on one of the little flat-bottom river steamers, which run up to the Western District, from Belize, as, in addition to Thompson and myself, I was taking Muddy and Andres; furthermore, we had a tremendous cargo of beans, flour, and other foodstuffs, sufficient for our own consumption and that of our gangs of labourers for some months, together with picks, shovels, photographic and surveying outfit, with bedding, tents, cots, cooking utensils—to which must be

added the special little luxuries in canned goods affected by each of us, and an extensive supply of tobacco and cigarettes.

On arriving at the riverside, where the *Tenny Fly*—for such was our craft's ridiculous name—was reported ready, we found the flat wooden awning of our cabin literally swarming with passengers, comprising negroes, Syrians, creoles, and coolies of both sexes, the few square feet of space between them packed with *pataquis*—the great, watertight travelling-baskets of the Caribs—and mahogany-cutter's gunny sacks, bundles tied up in towels and shawls, and other miscellaneous baggage. On remonstrating with the captain, and telling him this extra cargo would have to be jettisoned immediately, or we would seek another means of transport, he was full of apologies, and explained that these poor people were badly in need of passage, were only going a very short way, and would not trouble us at all, but if we wished they should be turned out at once, as it was only relying upon our charity that he had allowed them on at all. This rather took the wind out of our sails, so we agreed to the arrangement. As a matter of fact, all these passengers travelled the entire distance to Cayo with us, though they were so quiet and inconspicuous that we hardly knew they were on board, except when we left the boat every now and then to stretch our legs, and saw them squatted meekly and uncomplainingly in the same position on the narrow, uncomfortable awning-top. They endured it for two days and two nights, during which several showers fell, which must have drenched them through. They had to sleep for two consecutive nights in a constrained and uncomfortable position on the hard boards of the awning roof, with not even a cup of hot tea or coffee to cheer them, yet so hard is life for the poorer

class in the bush that they regarded it as all in the day's work, and never once complained throughout the entire journey.

The second day out we passed the mouth of Roaring Creek. Here, on a high spit of land dividing the creek from the Mopan River, is a small Indian settlement of a few huts, where we halted for a while. The whole population, male and female, adults and children, seemed to be afflicted with one disease or another ; in the case of the children, for the most part, hook-worm. They knew me for a doctor who dispensed medicines gratis, and naturally took advantage of the opportunity for obtaining something for nothing, till I rather regretted having stopped. However, we obtained a few crude flint spear-heads here, which Thompson purchased for the Field Museum. He had, before this, made an offering to the great god Chaac, the god of rain and fertility, and perhaps the leading deity of the extensive New Empire Maya pantheon, by throwing a silver quarter-dollar into the sea, and I followed his example, by throwing a dime into the Mopan, opposite Roaring Creek, within sound of the god's own element as it cascaded over the falls at the Creek's mouth, with a rumbling roar like distant thunder, which gave it its very appropriate name.

The second night out we spent at a clearing on the river-bank occupied by a few bush houses, and known by the euphonious name of " Baking Pot." Here, on the left bank of the river, is a vast collection of Indian mounds of all shapes and sizes, and there can, I think, be but little doubt that it is the site of the ancient town of Tipu, which was occupied long after the Conquest, and was the last outpost of Spanish dominion in these parts.

We arrived at Cayo, capital of the Western District, early next morning, and, setting out as soon as our cargo

had been unloaded, reached Benque Viejo, our jumping-off place, the same evening. Thompson, accompanied by Muddy, started that evening for Succots, a large Indian village, to hire labourers, and succeeded in securing ten, some of whom were so weedy-looking and anæmic that none but the lightest work could be expected from them, and pick and shovel wielding was entirely without their capacity. We were, however, glad to get men of any kind, for chicle, or chewing-gum, bleeding has entirely spoilt the local labour market, and, incidentally, the local labourer of recent years.

In the old days Indians were only too glad to work for fifty cents per day and their rations, now they can go into the bush for three or four months in the season, and earn as much as they formerly received in a year. The consequence of this is that they have given up making their old corn plantations, and raising pigs and fowls, and loaf, drink, gamble, and amuse themselves with the local ladies for half the year.

Thompson succeeded in hiring a woman cook for his gang, for, working far away from a village, as he contemplated doing, a cook was absolutely essential, the men having no time in which to prepare their own food. Next morning, however, she intimated that she had changed her mind. On enquiry it appeared that, though she had not long been a widow, she had already fixed on number two, who she believed to be going with Thompson's gang; but, finding that she was mistaken in this, as the prospective number two was apparently not "willin'," she promptly cried off at the last moment, and it was only with the utmost difficulty that Thompson succeeded in getting a man cook to take her place, a poor substitute, however, as no mere male has ever, within my experience, succeeded in acquiring the

difficult art of making tortillas, or corn-cake, which constitutes the *pièce de résistance* of the Maya's diet.

Next morning, accompanied by Muddy and a guide, I set out for the caves which Joyce and myself had passed on the way to Minanhà, in 1927. For the first four miles our path led through low, scrubby bush, known as *uamil*. This is land upon which the Indians have felled the high virgin bush within the last five or six years, and over which a low, thick, scrubby undergrowth, from ten to twenty or thirty feet high, has later sprung up. All round Benque Viejo, in every direction, is to be found this fringe of *uamil*, extending for many miles, so that the Indians are compelled to go very long distances in order to find soil covered with virgin bush, and suitable for their corn plantations. Now, the population of Benque Viejo is perhaps two thousand souls, and, unlike most Indian villagers, they live by no means on corn alone, for, earning good wages at chicle-bleeding, most of them are able to afford flour, biscuits, and even canned food. How, then, one naturally wonders, was it possible for the inhabitants of the great cities of the Old and New Maya Empires, such as Tikal, Copan, and Chichen-Itza, some of which must have contained nearly quarter of a million souls, to grow enough corn to support their great populations, when the modern Indians, aided by transport in the form of horses and mules, and agricultural implements vastly superior to the stone implements of their ancestors, are hard put to it to raise enough corn for food for only a few thousand people? There can, I think, be but one answer to this question, namely, intensive cultivation. The modern Indian knows nothing of the rotation of crops, and even when it has been demonstrated to him practically, at botanical centres, that after a crop of black beans the land can be used

again the third year for another crop of corn, he is fundamentally so reactionary that he prefers to walk six miles and fell a tract of virgin bush to make his *milpa* than to utilise a piece of land half a mile from home, after enriching the land with a crop of beans—which he must, in any case, grow on the new plantation. The Maya, before the Conquest, must, undoubtedly, either have understood the rotation of crops, or they must have added to the land in the form of fertiliser of some sort those elements which they took out of it in raising a crop of corn. Otherwise, with their lack of transport facilities—for they had neither wheeled vehicles nor beasts of burden—and crude stone axes and ploughs, it would have been impossible for them to have raised enough corn to provide food for the populations of their larger cities, within the limited area which their disabilities in transport and implements imposed upon them.

We travelled approximately seven miles, in a general south-easterly direction, ascending all the way till we reached an elevation of 630 feet above Benque Viejo, by my aneroid. Here, we arrived at a low range of mountains, and, entering a pass in these, found ourselves in a great gorge or *barranca*, with limestone cliffs rising perpendicularly on each side of us. Before coming to this gorge, however, we had passed a couple of tiny *milpas*, or corn plantations, of only a few *macates* each, buried in the virgin bush, and situated on the floor of microscopic valleys, where, owing to the alluvial wash from the surrounding little hills, the soil must have been extraordinarily rich. These, our guide told us, were known as *milpas contrabandistas*, a name which needs no translation. They were, in fact, made by enterprising Indians on Government land, but without the Government's knowledge, and, what was of more importance

to their owners, without the payment of the customary ten dollars which the Government usually demands from the tenant. They hoped to snatch a small catch crop from these little fertile spots, before being detected by some Government surveyor or inspector, and showed a good deal more courage and enterprise in the little undertaking than is, unfortunately, usually possessed by the modern Maya, whose many years of slavery and degradation under the cruel yoke of Spain have completely broken the finest tempered courage, the fiercest spirit, and the most ardent patriotism of any aboriginal American nation.

The great natural pass through the mountains, in which we now stood, had apparently at one time formed the bed of a stream, for it was strewn with immense water-worn boulders of limestone, though it was evident that many years must have elapsed since last water flowed here, as vegetation was flourishing wherever it could find a roothold between the boulders, which were themselves covered with long green moss such as would soon have been detached by a running stream.

The *barranca* ran nearly north-east and south-west, and was perhaps 80 yards in breadth. The perpendicular walls were so cleanly cut that they suggested rather a feat of modern engineering than a work of nature. Following the course of the *barranca* for perhaps a quarter of a mile, we came upon a dark opening in the south-west wall about 50 ft. up, and approached by a great mass of boulders, up which we climbed with some difficulty, as they were very slippery, finding ourselves at the mouth of a cave, the arched opening of which was perhaps 30 ft. in height. The cave had doubtless been opened to the light of day at some remote period in the past by the fall of this vast mass of rock from the face of the cliff.

It was evident that, at one time, a river had run out of the cave, and over these boulders, to the main stream-bed, along which we had travelled, for they were greatly water-worn. Entering the mouth of the cave, we found ourselves in a lofty chamber, perhaps 100 ft. long, from the limestone roof of which depended masses of stalactites. The floor was covered with cave-earth, upon the surface of which were innumerable potsherds of all shapes and sizes. This earth was found on excavation to be divided into an upper layer of dark brown colour, some 3 to 4 ins. in thickness, interspersed with a white network of lime particles, evidently derived from lime-impregnated water dripping upon it from the roof. This layer contained innumerable pieces of pottery. The deeper layer, which reached to the bottom of the cave, and varied in depth from a few inches to a few feet, was of a light yellow colour, also impregnated with lime, but contained no potsherds whatever.

Continuing along this chamber, we found that, as we got deeper in, it narrowed, and the floor was covered with small boulders, and ended in a smooth stone ledge 6 ft. high, running right across the cave. Climbing this, we found ourselves in another chamber, with a smooth stone floor, containing many stalactites and stalagmites. Continuing along this for perhaps 30 ft., we came to the base of another almost perpendicular ledge or wall, nearly 10 ft. high, ascending which, with some difficulty, we found ourselves in a third division of the cave. The floor of this was covered with immense slab-like boulders, evidently fallen from the roof and sides of the chamber, in the remote past, though the fact that one great slab was loosening from the wall, for its crash to the floor, made us realise that the process was by no means over, and we walked very circumspectly,

KEKCHI LABOURER BY STELA O, AT CHUMUCHÀ
(*See p.* 145)

ALTAR IN RECESS.
INDIAN BESIDE IT. REMAINS OF TWO TINAJAS IN FRONT

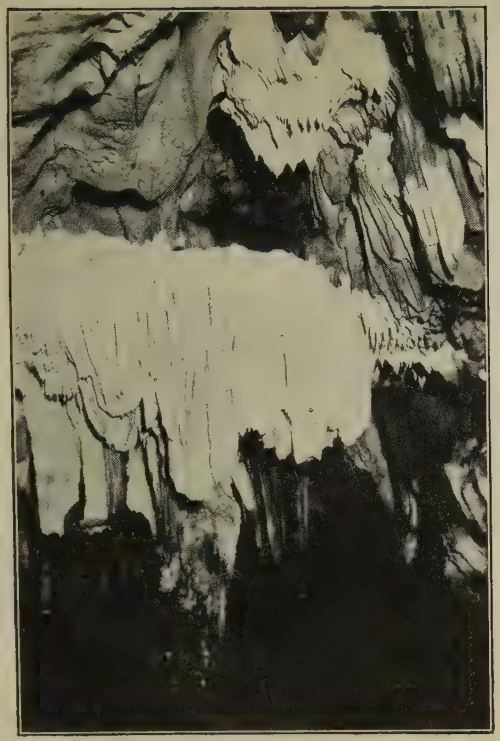
and without noise, through the chamber, which continued for about 30 ft. At its end the cave broadened out, and the floor, though irregular, was again free from boulders. Up to now the course of the cave had been approximately north-east and south-west, but here it took a turn to the westward, and the great lofty chamber ended in a row of magnificent fluted stalagmitic columns, which appeared to block further progress. On close examination, however, we found a narrow passage, leading on to a further portion of the cave—but, before describing this, I must return to the main chamber.

In the south-east wall of this, just where the chamber turned to the west, was one of the most remarkable structures I have ever seen in the Maya area. This consisted of a small alcove in the solid wall of the chamber, in which stood a table-like altar, perhaps 8 ft. long, approached by a flight of rough stone steps hewn in the living rock. It was an extraordinarily spectacular sight, and held us all spellbound for a moment, when the powerful rays of the gasoline lantern fell on what appeared to be a Christian sanctuary, cut in the living rock, in the heart of a great cave, buried in the depths of the mysterious Middle American forest. This remarkable little altar, with the steps approaching it, is, I think, to a great extent a freak of nature, later modified to some extent by the hand of man, though whether before or after the arrival of the conquerors in the New World it is impossible to say. Upon the little platform in front of the altar were the upper parts of two large, broad-mouthed, amphora-shaped pots, possibly used at one time in some religious ceremony by the former inhabitants.

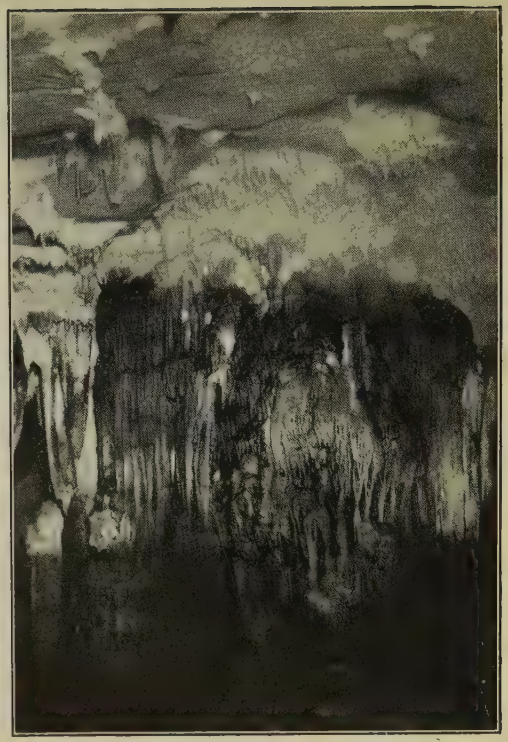
Our guide from Benque Viejo to the caves, though he had never explored its inmost recesses himself, told us that those Indians who had been in reported a whispering,

fluttering sound heard, throughout the dark part, which never ceased, and which must certainly be caused by the uneasy souls of the former inhabitants, resenting the intrusion of the living into this abode of the dead. The old man was wizened, wrinkled, and bent, his long grey hair fell over his forehead and almost to his shoulders in elf-locks, and his mournful brown eyes looked out at one with the wisdom of the ages, and an utter indifference to all mundane affairs, and when we actually heard, with our own ears, this same curious subdued fluttering noise, coming, apparently, from somewhere aloft, we were not unnaturally somewhat impressed. The powerful rays of our lantern, however, soon cleared up the mystery, and showed the ghost-like shapes of innumerable little bats, disturbed by the fierce light, flitting to and fro in the lofty roof above our heads.

Continuing through the narrow passage by the side of the row of beautiful stalactitic columns, which apparently ended the main chamber, we came to a pool of clear, cold water in a little depression on the floor of the cave, fed apparently by drippings from the roof and walls. Beyond this, the cave again expanded into a good-sized chamber, the floor smooth and unencumbered by rocks, but very slippery; the roof, supported by numerous graceful round columns, many of them formed by the fusion of upward growing stalagmites and downward growing stalactites. About 30 ft. from the opening, we were suddenly confronted by a most exquisite spectacle. Hanging from the roof, like a diamond-encrusted veil, and half filling the lumen of the chamber, was a glorious snow-white curtain, formed of innumerable stalactites of all sizes, those at the sides assuming the shapes of folds in textile material, those above, of masses of little corrugated pyramids, depending from a wavy base. The effect



Benque Viejo. Stalactite Mass hanging from Roof



Passage to Inner Chamber between Stalactite Columns

[p. 44

of the whole snowy mass, glittering and scintillating in the powerful white rays of the lantern, was almost indescribably lovely, and for a moment caused us to hold our breath in awe, for the second time since entering the cave. We followed this last chamber up for approximately 300 ft., when it began to narrow down to a mere passage, which brought us to a small chamber, entirely surrounded by stalactitic columns, and, as it appeared to us, almost filled by small bats, hundreds of which, disturbed by the bright light, flitted about the tiny chamber, often fluttering up against our faces, apparently too confused to be able to find the narrow exit. This chamber ended in a very narrow passage, through which the river that once flowed through the cave evidently had its entry. We did not explore this passage any further, as no traces of human occupation were to be found beyond the bats' chamber ; there can be little doubt, however, that somewhere it communicates with the open air, as the great clouds of smoke caused by the ignition of flashlight powder drifted always towards the mouth by which we had entered, indicating plainly that there must, somewhere, be a second mouth through which the air-current enters. Like the great cave of Loltun in Yucatan, whose interminable galleries and passages no man has ever explored, this cave may have many openings, but I am inclined to think that it has but one other mouth, on the far side of the range of limestone hills beneath which it burrows, and that it was formed originally, like so many limestone caverns, by the slow solution of the calcium salts in the soft rain-water, till ultimately a passage was eaten out beneath the mountain, which later was enlarged by the passage through it of a mountain torrent.

Returning through the chamber of the stalagmitic curtain, we noticed a large opening on one side of the

cave about five feet from the floor level, approached by an almost perpendicular wall. Climbing this, we found ourselves in a second cave, or passage, leading off at right-angles from the main chamber. Following this, we shortly arrived at the mouth of a dark hole filling the entire floor of the passage. On letting the lantern down this with a cord, we found that it was about 10 ft. deep, the sides being almost perpendicular, slippery, and offering hardly any foothold. Fortunately, by the side of the hole there descended from the roof of the cavern a narrow, circular column, and, aided by this, we all managed to climb down, though with difficulty, and at some expense to our clothing.

At the bottom of the hole we found ourselves in another passage, or chamber, some 6 ft. high, supported on both sides by round stalactitic columns. The air here was somewhat close, but by no means unpleasant, though so far from the outer air and so deeply buried in the heart of the mountain, showing that a free current of air must at all times be kept up throughout even the deepest recesses of this cave. The temperature was pleasantly cool, and although, for the reason presently indicated, we spent nearly two hours in this little chamber and the diverticula connected with it, none of us felt in any way the worse for the experience.

On reaching the bottom of the hole, and throwing the rays of the lantern into the little chamber where we now found ourselves, we received the third shock since entering the cave that morning, for there, before our eyes, strewn irregularly along the flat floor, and lying in the spaces between the pillars, was an enormous collection of the pottery left behind by the ancient inhabitants, when, for some reason, they left their cave dwelling, evidently in a tremendous hurry, never to return to it

again. There were hundreds of these vessels, of every conceivable shape and size, from the tiny food-bowl, holding perhaps half a pint, to the immense receptacle for *atole de mais nuevo*, holding nearly 15 gallons. With four exceptions, however, this immense collection of ancient Maya crockery was composed exclusively of domestic and kitchen utensils. There were amphora-like jars for holding water, of fine, thin, hard pottery; large, thick, coarse, flaring-mouthed vessels for the storage of beans, corn, pumpkin-seeds, and other dry, light articles of food; numbers of round, blackened cooking-pots; shallow dishes, some of coarse pottery, others of tough polished red ware, probably for the reception of cooked foods and fruit. Possibly the most interesting article of the entire collection, however, was, as already stated, an immense pot of hard but rather thick pottery, with wide mouth and flaring rim, holding about 15 gallons. The counterpart of this vessel is used by the modern Maya in Yucatan to preserve the *atole de mais nuevo*, or *atole* made from new corn, long after the new corn is over. This drink is regarded as a great luxury by the Indians, and is made by grinding, boiling, and straining the new, sweet, tender corn. Like new peas and strawberries, the season for it is soon over, but they have evolved a most ingenious and quite simple method of preserving it for future use as successful as our own efforts along the same line with peas, and far more successful than with strawberries. The *atole* is slowly boiled down, and inspissated, till it assumes the consistency of a thin jelly. It is then poured into one of these great wide-mouthed pottery vessels till it is nearly full. Lastly, over the top of the thin jelly is spread a layer of fine white wood-ashes, about 2 ins. thick. This serves to keep out the air, and preserves the *atole* sweet

and unfermented, almost indefinitely. When it is required for use, a corner of the layer of ashes is scraped away, and as much as is required of the *atole* removed. This is mixed with the desired quantity of water, hot or cold, and is then ready to drink. There can, I think, be no doubt but that this was the use to which this vessel was put by the former inhabitants, and goes to prove that this method of preserving the new corn *atole*—a drink not only very popular, but very necessary in certain ceremonial religious observances—originated with them. The exceptions, previously mentioned, were four plates of painted ware, decorated in thin black lines with various devices. They are unfortunately badly broken, and only a few pieces of each were recovered. On one of these is outlined, in black lines on a yellow background, a monster which appears to be a whale. Either this plate was a trade piece from the coast, where the artist had, no doubt, seen the carcasses of whales which not infrequently get stranded in the shallow waters between the cays and the mainland, or, more probably, as the coast Indians were, for the most part, incapable of producing pottery of this type, a local artist had made a trip to the sea, where, either from a personal view or a graphic description, he had derived his idea of a whale.

It is very rarely in these days that one comes across extensive collections of the large domestic vessels used by the ancient Maya. Small pots are frequently found, buried with women of the lower classes, accompanied by their corn-grinding stones, spindle-whorls, clay and stone beads, etc., but large vessels, never; and it is only in the case of an accidental discovery of caches, in caves which have been used as dwelling-places, and hurriedly deserted, that one can hope to make such a find. With the increasing number of chicleros and

archæologists who penetrate the bush now covering the Maya area of Middle America, cave finds of this kind naturally become rarer and rarer every year.

The floor of the little chamber containing the pottery was covered throughout with a layer of broken fragments, many of which evidently belonged to the period when the cave was inhabited, indicating that it was no mere temporary sanctuary from the incursions of the Conquerors, but had been used as a storehouse over a very considerable period. That the cave had been used primarily as a place of refuge from the Spaniards by the neighbouring Maya, probably soon after the conquest of Yucatan, there can, I think, be little doubt, for, as a place of residence for peaceful, unharried agriculturalists, it has many and manifest disadvantages. Moreover, the outer chamber, easily accessible, dry, and lighted, though dimly, by the sun, would naturally have been chosen in preference to this innermost recess, small and inconvenient, so difficult of access that children could never have got in except by being lowered by means of a rope down the pit which leads to it, and where Stygian darkness must always have prevailed, a very important matter from the Maya point of view, as their only means of lighting were native black wax candles, and torches made from splinters of dry pitch-pine. Yet the Maya chose this most secret recess to live in, obviously, I think, because it would have been almost impossible for wandering bands of marauding Spanish soldiers to find them there, as, even had they succeeded in reaching the end of the cave—a very improbable contingency, for their rapid retreat was cut off by the high, almost perpendicular ledges of stone intervening between them and the exit, and, with only the dim light of torches and oil lanterns to guide them, a surprise attack by the Indians would

have been disastrous—they would have been very unlikely to find the opening in its side leading to the pit, and would certainly never have dared descend the latter. We may then, I think, take it that the cave was occupied somewhere about the end of the sixteenth century by the harried and driven remnant of the neighbouring Maya, who, for some reason (probably the gradual closing in on them of their enemies), were compelled to leave it at such short notice that, though they were able to carry off their jewels, ornaments, fine painted pottery, flint and obsidian weapons, and other easily portable articles of value, they were compelled to leave all their domestic pottery behind them.

One great advantage the cave had as a place of refuge, namely, the presence of an abundant water-supply, collected on the floor from the roof drippings. The Maya, living as they did almost exclusively on maize, could store up enough of this grain to last them for a long time, without being compelled to leave their stronghold, but water, for cooking and drinking, was an absolute necessity. We found a great number of large stalagmites broken off short, probably to make more room, but did not come across a single rock carving or petroglyph, such as are plentiful in the cave of Loltun, though we had confidently expected to find something of the kind.

CHAPTER III

Return from the cave—We pass a "Santo"—Nobody will steal from God—Origin of *santos*—Two old-timers swap tales—The sad tale of Serafin Vasquez—Combined fortification, temple, and look-out place—Burial-mound, with possible sculptured portrait of the occupant—Burials beneath former houses of deceased—An ideal resting-place for the dead—A paradise for fur and feather—A squirrel's life—The Maya fable of "The Squirrel and the Dove"—The ant-eater, his useful work and tragic end—Regrets at disturbing the rest of the dead, who sleep their last sleep in an ideal spot.

RETURNING from the cave to camp, we sat down to rest by the side of a *santo* on the trail-side. This consisted of a small black wooden cross, draped in the usual way in a miniature *huipil*, or Maya woman's skirt, nicely embroidered about the neck and hem. It was elevated on a little pyramid of small stones, plentifully bedecked with gay, wild flowers, amongst which I noticed a number of priceless orchids, each flower of which, in Europe, would have more than paid an Indian's day's labour. Down the face of the little pyramid ran cascades of congealed wax, from the gutterings of innumerable candles which had been burnt on the shrine, while round the head of the cross hung a string of quite pretty blue glass beads, the contribution, perhaps, of a more than usually devout female worshipper, or, more probably, of one more sorely in need of aid in some affair of the heart. Under ordinary circumstances this necklace would have been snaffled by the first passer-by, but here, regarded as actually the property of God, not even the godless, but highly superstitious, chiclero would dare touch it.

Wherever Indians dwell these little *santos*, as they are

called, are always to be found along the trails, and every passer-by adds a stone or a few wild flowers, at the same time removing his hat, and repeating a "Pater" or an "Ave." This custom of erecting a crucifix along the trails, and worshipping it, was, probably, of all Christian observances the one most easily inculcated into the Indians, for the cross was, even before the arrival of Christianity, regarded as a sacred symbol amongst them, and they worshipped images of their own Bacabs, or year bearer gods, both at the four cardinal points of the village boundaries and along the trails. A combination, therefore, of the two ideas, the sacred cross, or symbol of the four winds and cardinal points, and of the four Bacabs, would naturally appeal to them as one of great religious potency.

A large tree had been chopped down near the *santo* to provide seats for weary travellers, and a convenient stand upon which tired Indians, returning from their little plantations, might deposit the immense loads of corn, beans, and pumpkins which they carry on their backs in a *macapal*, or netted bag, supported by a strap passing round the forehead. These loads are sometimes so heavy that the bearer cannot put them down without the assistance of another man, or at least some little raised spot, like this fallen tree, whereupon to deposit them.

As we sat and talked, there arrived along the trail an ancient Indian carrying an immense load of corn in the ear, almost as big as himself. He was bent double, and staggered rather than walked under his burden, the perspiration streaming in rivulets down his face. With a grunt of satisfaction he literally collapsed beside us on the trunk, letting his burden fall upon it with a resounding whack. It nearly overbalanced him, and pulled him

backwards over the trunk, but that our guide, who was sitting close by, put out an arm and saved him in time.

The two old-timers then began swapping tales of Benque Viejo, as they remembered it thirty or forty years before, when chicle, Syrians, and negroes were unknown in the land, and the Indians lived almost solely on the produce of their *milpas*. Most of their tales were decidedly Rabelaisian, and would not bear repeating, relating as they did of ladies of the Maya demi-monde, all of whom appeared to have gone west years before—indeed, to hear the old chaps talk, one would imagine that they were the last of their generation, and now lived in a world peopled by ghosts of the past.

One tale, however, struck me as being rather amusing, and quite of a drawing-room character. It related to a well-known character in Benque Viejo many years ago. His name was Serafin Vasquez, and he was an immense man, probably 6 ft. 5 ins. or 6 ft. 6 ins. in height, with an enormous walrus moustache, a huge nose, and a long, mournful Don Quixote face, whose expression was belied by a little twinkle in his small, deep-sunk, brown eyes. He had been a sergeant in one of the first convict regiments sent down by the Mexican Government for the conquest of the Santa Cruz Indians, but, not liking the job, had deserted, and taken refuge in British Honduras. The Mexican Government apparently never thought it worth while asking for his extradition for whatever crime he had been originally convicted, and as desertion is not extraditable, he spent the rest of his life in the Colony, the greater part of it in various gaols, on charges of "drunk," or "drunk and disorderly," as his main boast was that he had never been convicted of theft. On one occasion he was run in by the native constables of Benque Viejo, on the usual charge, and, having no money to pay the fine, was

given, in default of payment, six days' work on cleaning the streets of the village. For this purpose he was supplied with a machete with which to root out weeds and chop bush. On leaving the *cabildo*, after sentence, without a guard, as there was nowhere to which he could escape, he promptly retired to the nearest hut where he knew he could buy rum, exchanged the machete for a pint, which he enjoyed in the shade of a *ceiba*, just outside the village, and, returning at midday for food, reported to the Alcalde that, while obeying Nature's call, shortly after he had gone to work, some scoundrel had stolen his machete. The Alcalde, knowing his people only too well, realised that this was an extremely probable tale, and sent Serafin out with a perfectly new machete in the afternoon. When, however, he returned an hour or so later with the same excuse, and smelling strongly of rum, the Alcalde felt it was too much, and simply bundled him out of gaol, the balance of his sentence remitted.

While at work on the cave, my camp was pitched on the side of a small natural elevation, about a mile to the east of it. This little hill stood in the midst of a small valley, surrounded on all sides by mountains, over the whole of which a bird's-eye view was to be obtained from its summit. It had probably been used by the ancient inhabitants—though whether by the New Empire Maya, who inhabited the cave some four centuries ago, or by those of the Old Empire, who occupied the country some fourteen centuries since, it is impossible, with our present knowledge, to decide—as a combined look-out place, fortification, and temple.

Its truncated summit contained a flat, oval space, measuring approximately 80 yards by 40. We dug into this, at various points, and found that it was built of large blocks of limestone, mixed with rubble, nowhere of less

depth than 4 ft., so that at least three or four thousand tons of stone must have been carried to the original hill-top, probably flattened for their reception, in order to form this oval platform.

At the edge of the north curve of the oval stood a steep mound, some 18 ft. in height. Excavation in this revealed nothing but great blocks of limestone, and it had, probably, originally been a substructure for the support of a wooden temple. A little to the west of this temple were the ruins of a stone building, with a fine unsculptured limestone lintel. On the edge of the south curve of the oval stood a long, narrow mound, 5 ft. in height. This was completely dug through, and found to be composed of large blocks of limestone, the interstices between which were filled in with small rubble. This mound rested on the cement layer which had formed originally the surface of the oval summit. We were greatly disappointed at finding nothing within it except fragments of coarse pottery, as it had every appearance of having been a burial-mound, and it is very difficult to conceive what its use can have been.

Here we see exemplified again the Maya's love for " high places " for their temples, such as they invariably chose in hilly country, or manufactured artificially, with immense labour, by the construction of vast, stone-faced pyramidal structures where Nature provided no artificial elevations. The great platform would have provided an excellent fortification against invaders, easily defensible against a foe armed with shield, spear, and bow and arrow alone, while the view afforded from the top of the temple mound would not only have given ample notice of the coming of enemies, but would have afforded the ruler priest a site from which the goings and comings of his people could be viewed, for many miles around. A

second mound, excavated to the west of camp, was in the shape of a truncated cone, 15 ft. in height, and 180 ft. in circumference at the base. Excavation was commenced by removing the entire summit of the mound. It was composed of large blocks of limestone and rubble. At a depth of 3 ft. was brought to light a cache containing four axe-heads, and five spear-heads of flint, very beautifully chipped. Almost beneath these, at a depth of 4 ft. 6 ins., appeared a human skull, a good deal broken up, probably at the time of burial, by a large flat stone which had been placed over it. Close to the skull lay a life-sized human mask of very fine-grained limestone, from which the left side of the forehead had been broken away, either before or during burial, probably the former, as the missing piece could not be found. It appears not improbable that this represents a sculptured portrait of the individual to whom the skull belonged, as it is certainly not the head of any of the gods of the Maya, and the crooked mouth, broad, flat face, and small nose appear to portray the characteristics of some particular individual. Whether this is so or not, the face is certainly more like that of certain types of modern Yucatecan Maya than those of the codices and the monuments. Three feet north of the skull, and on the same level, were found the femora and tibiæ, with some of the tarsal bones, all very much decayed, and 6 ft. west of the skull, also at the same level, were found some fragments of the arm-bones. It is obvious, therefore, that this was either a secondary burial, the bones having been removed from some former resting-place and buried in this mound, or else that the body was completely dismembered before burial, and the various parts scattered over the surface of the mound—the former of these hypotheses being by far the more probable.

At Holha—Maya for water-hole—some six miles north-west of the cave, and quite close to the dated ruins of Xunantunich, I excavated four mounds. The first of these was 40 ft. in diameter, 7 ft. high, and in the form of a truncated cone. It was built, to within 2 ft. of the bottom, of rubble and large masses of limestone. At this depth was encountered a layer of smooth, tough mortar, probably at one time the floor of a house, and beneath this the mound was composed of tightly packed rubble, to the ground-level. In this rubble, near the centre of the mound, and immediately beneath the level of the former floor, were found the remains of a skeleton, the bones in a very poor state of preservation. With it were a few fragments of obsidian knives, a considerable number of rough potsherds, and a single crude hand-axe.

The second mound, situated within a few yards of the first, was almost identical in structure, and differed from it only in the fact that, instead of being conical, it was long and narrow. The upper part, composed of blocks of limestone and rubble above the former house floor, and the layer of compact rubble beneath it, were all identical, but no remains of human bones were found, and it is probable that these had become entirely disintegrated in the course of the centuries, as fragments of obsidian knives, and quantities of potsherds marked the spot near the centre of the mound, just beneath the original floor, where the body should have lain.

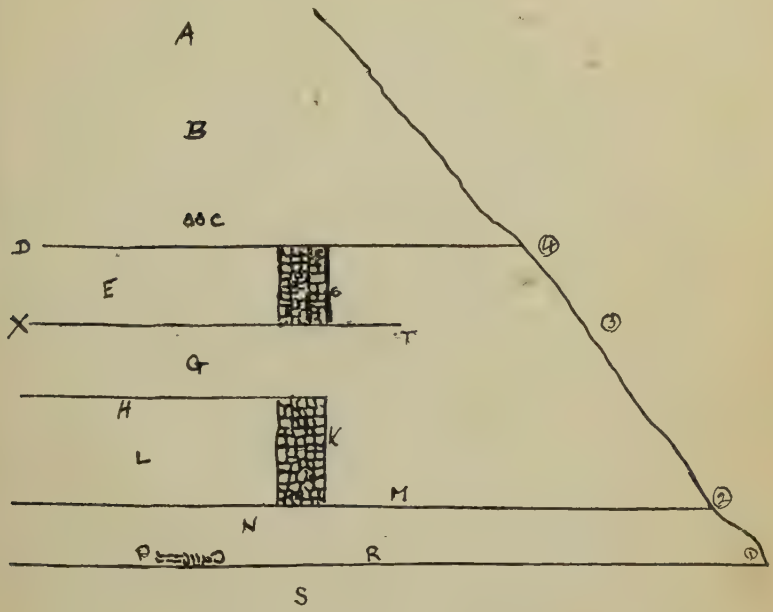
There can be but little doubt that these two little mounds were originally platforms, upon which stood the leaf and stick houses of two of the poorer class people. At the death of the owners, a hole was made in the cement-like floor of the house, in which the corpse was deposited, the house was then pulled down, and over its floor was built a cap of rubble and blocks of limestone,

which abound in the vicinity. Landa, the Bishop of Yucatan, who probably knew more of the habits and customs of the Maya at the time of the Conquest than any other chronicler, tells us that this burial of individuals beneath the floors of their houses, and subsequent destruction of the houses, was extremely prevalent amongst the Maya of all classes, before the coming of the Spaniards.

I must admit that I felt some regret at having disturbed the last resting-place of these two poor Maya, for a more delightful spot in which to await the trump of Gabriel it would be impossible to conceive, as the mounds were situated on the summit of a ridge, perhaps 200 ft. in height, and overlooking on each side a densely wooded valley. The ridge was covered with giant ceiba-trees, graceful cuhoon-palms, gumbo-limbo, chichem, and other forest giants, whose vast spread of foliage offered a grateful shade from the midday sun. The undergrowth was so sparse that—unlike most virgin bush, where a perpetual deep twilight and almost absolute silence exist even on the brightest day—air and sunlight penetrated freely, and one could walk about without having to hack a trail painfully with the machete every yard one travelled.

Every bird and little beast in the forest seemed to have discovered this earthly paradise, and as I sat one evening in the excavation made in one of the mounds, enjoying the sunshine—for a chilly north wind was blowing, which made the virgin forest unpleasantly cold—I had a splendid chance of observing the life and habits of the minor denizens of the bush, for so tame were they that, after the first half-hour or so, they took no notice whatever of my presence. Flocks of noisy piam-piams flew from tree to tree, reiterating their monotonous note "piam! piam!" so busy over their eternal squabbling and

SECTION THROUGH PART OF MOUND AT HOLHA, NEAR SUCCOTS



A. Humus covering mound.
B. Rubble.
A A C. Two small pots.
D. Upper mortar floor.
E. Wall.
F. Rubble.
G. Second floor.
H. Third floor.
K. Lower wall.
L. Rubble.
M. Fourth floor.
N. Rubble.
P. Burial in extended position.
R. Lowest floor.
S. Rubble, to ground level.

raucous screeching that they never seemed to have time even to eat. These birds, regarded as game, are beneath contempt, for, though they are of a good size and plump, they taste like earth, and are tough as shoe-leather, so that only under direst stress will even the Indians kill them for food, a fact of which they are well aware, for they fly screaming around one's head, almost within arm's length. Flashing like emeralds in and out between the branches, were flocks of tiny parakeets, and pairs of yellow-headed parrots, dining off the chichem-berries, and screeching in the process loudly enough to drown at times even the piam-piams. Great toucans were gorging themselves on the same luscious fruit, and on berries which looked exactly like black currants and grew in great profusion amongst the sparse undergrowth. On a cursory trial these berries tasted very like currants, but I was afraid to go very far into the test, less they might not agree with me as well as they obviously did with the birds. The curious, vibratory trill was to be heard of gorgeous little humming-birds—or "flower-suckers," as the natives call them—as they flashed from purple lily to sweet-scented jasmine, with a halt at flowering cactus and air-plant, sucking honey wherever honey was to be found. The regular tap, tap, tap of the giant, red-crested woodpecker was to be heard reverberating through the forest, audible above all other noises, as the notes of the tunkul, or Indian drum, reach one's tympanum, with their curious, insistent rhythm, above the noise of half a dozen louder instruments. The giant woodpecker however, unlike the piam-piam, is a wary old bird, for bitter experience has taught it that, notwithstanding its carnivorous habits, it is regarded by Indians as a *bon bouche*. It always manages to keep the branch upon which it is operating between itself and the spectator,

and, chase it never so carefully, it generally succeeds in keeping the far side, the only exception being when, in the excitement of the moment, it peeks round to secure an escaping bug or beetle, which it has flushed from beneath the bark of a rotten branch.

Hearing a curious squeaking behind me, I looked round, and there was a flock of tiny brown squirrels playing hide-and-seek amongst a great mass of air-plant, suspended by a network of ropes of liana from the limbs of a giant bread-nut tree. Their agility was only equalled by their fearlessness, and falls seemed to have no terror for them at all, for the immense, bushy tail appeared to act as a sort of parachute for the light little body, and carry it triumphantly over a 20 ft. descent from branch to branch. A squirrel's life in this neighbourhood must—at least from a human point of view—be perfectly ideal, for food is abundant and savoury, in the form of cuhoon-nuts, which fall all the year round, and innumerable berries which only require picking, so that they have nothing to do but eat, sleep, play, and procreate, and, as far as one was able to judge, they made the most of these opportunities ; but then squirrels' ambitions may differ from those of men, and they may possess aspirations and longings for higher things than food, sleep, and play, *quien sabe?* The squirrel is regarded by the Indians as one of the most astute and tricky of animals, though on what grounds it is difficult to imagine. The following is one amongst many of their animal fables dealing with the little beast, and well exemplifies the point. It is entitled " The Squirrel and the Dove."

A lean and hungry squirrel was wandering one day through the low scrub of Yucatan ; the midday sun was beating down like a ball of fire on the flat, shadeless expanse, birds and beasts had betaken themselves to the

shade, and the siesta, and nothing wandered abroad but the snake and the lizard.

But, alas ! the squirrel's empty belly would not allow him to rest, for he had partaken of neither food nor water for many hours.

Trailing miserably along, he espied a magnificent oak, whose leafy branches threw a grateful shade for many yards around, and the poor disconsolate squirrel, his bushy tail trailing in the dust, his parched tongue lolling from his mouth, made up his mind to climb into the branches, and endeavour in sleep to forget for a while his troubles, for, said he : " Those who sleep feel no hunger."

Curling himself up on one of the topmost boughs for this purpose, he, after the manner of his kind, took a last peep round to make sure that the tree had no undesirable tenant, such as a tiger-cat, or, worse, the horrible noiseless and sinuous woula, the " silent death," which might make a meal of him while he slept.

On a branch immediately beneath he espied a little brown dove, sitting on her nest, obviously much perturbed at his appearance, for her little neck was stretched forwards, her beak open, and her eyes bright with anger.

" What do you want here," said she, " villain and egg-thief ? "

" Indeed, friend," said the squirrel, " you do me an injustice. I have never tasted eggs ; moreover, my belly is at the present moment full, and my motive in coming here was solely to give you warning."

" Warning of what ? " said the dove.

" Is it possible you have not heard that a terrible hurricane is about to visit the land, followed by a downpour of solid water, and that all birds and animals have betaken themselves to the caves and rocks till it is over ?

You should at once fly off to the great cave of Loltun, there to wait in safety till it has passed."

" But," said the dove, " if I leave the nest, my eggs will perish, and how will my husband find me again when he returns home ? "

" As to that," replied the squirrel, " I will await your husband, and tell him where you have gone, and you can easily lay more eggs, while those you are sitting on are bound, in any case, to be destroyed, for this great tree will undoubtedly be uprooted by the force of the hurricane."

The dove, convinced of his disinterestedness, thanked him for his warning, and promptly flew off to the cave of Loltun.

No sooner had she departed than the squirrel devoured all the eggs, then, thanking the gods for their bounty in satisfying both his hunger and thirst, curled up to sleep, with a smile of repletion on his sly face.

In the meantime the little brown dove patiently awaited developments in the dark, damp, foodless recesses of the great cavern of Loltun, but, finding at the end of the third day that nothing happened, and that her husband did not join her, she flew back to her nest in the great oak.

She found the nest empty, and the shells of her eggs scattered beneath the tree. The squirrel at this moment, somewhat imprudently, put in an appearance, and was at once attacked as the cause of all her misfortunes.

" Miserable, shameless son of a female rat " (an insult which even the meekest squirrel will resent), said she, " you lied to me about the hurricane, and when my back was turned ate my eggs."

" Not so," replied the squirrel ; " as I told you before, I do not like eggs, and I saw a snake eat them."

" And the hurricane and rain of solid water ? " said the dove.

"The gods," returned the squirrel, "had compassion on our country and held their hands. Let us give thanks to the goodness of the gods," added he hypocritically.

"There," he continued, "are some of your companions; go and ask them if what I say is not true."

The ingenuous bird flew off to a flock of her fellows who were feeding in the vicinity on succulent sour-grass seed.

The squirrel, seizing the opportunity thus afforded him, hopped off into the bush, and was never seen again. Since then the dove, at morning and even, intones in Maya, only this melodious but sad song: "*Ay, cuut-toon-toon-sen*," which, being interpreted, means, "Ay, but the squirrel has deceived me many times!"

The moral, if moral there be (and most Maya fables have a moral, implied though not expressed), appears to be "it is dangerous to judge by appearances."

While absorbed in the antics of this band of squirrels—and I have never seen these little animals go about in large droves before—a large piece of dead bark fell at my feet, and there, almost directly over my head, I espied an ant-eater climbing up the topmost branches of the giant ceiba, whose foliage shaded the hole in which I sat. I had never seen one so close before, and, as he either did not realise my proximity or was quite indifferent to it, I had an excellent opportunity of watching his antics. He was a curious little animal, with his shaggy coat of piebald black-and-white, his immensely long snout, and great heavy tail. The Indians call him *braso fuerte*, or "strong arm," and one realises what an appropriate name this is as one watches the effortless ease with which he climbs a perpendicular tree-trunk, or raises himself from one branch to the next above. His movements are never hurried, but then his occupation is a leisurely one, and

consists in prying off sections of dead bark with his snout and promptly absorbing ants, beetles, spiders, or any other kind of small game he may flush beneath. My first idea on seeing him—as I imagine it is of most people on seeing any native of the wild, *chez lui*—was to shoot, but then I bethought me of what I had suffered from insects, ticks, red-bug, mosquitoes, beetles, flies, sand-flies, doctor-flies, jiggers, and innumerable other pests. I remembered the myriads of their kin this little animal must consume in a year, and I refrained. Alas, poor *braso fuerte* !

Next morning I saw one of my Indians carrying a pathetic little black-and-white hide, still gory, and he told me he had shot the owner the previous evening, not for food, but for his hide, with which to make a case for his gun.

What an ideal place to rest in, when life's struggles are over ! The sun strikes the wooded crest of the hill, while yet the valleys on each side are in shadow, and all the furred and feathered inhabitants of the bush seem to assemble here happily in the morning. One thought on the joy and fearlessness which must have pervaded all creation in the morning of the earth. The more I thought on these things, the more guilty I felt at disturbing the age-long rest of the two sleepers beneath the mounds ; but it would never do for an archæologist to become a sentimentalist, for the two are incompatible.

CHAPTER IV

A remarkable burial-mound—Type of houses in use amongst the Maya of the New Empire—A corpse unaccompanied by votive offerings, very rare amongst the Maya—First owner of house possibly died of syphilis—Second owner of house suffered from some inflammatory bone disease—Problems presented by this mound—Objects usually buried with the dead—Arenal, a village lying in two countries—Smuggling chicle—Rumours of a sculptured stela—Interesting cave—Burial of mother's finger-joint with beloved child—Beautiful piece of pottery with hieroglyphic inscriptions upon it—This potsherd really constitutes a page from a codex—Why this fragment was buried with a child—Small snakes abound in the cave, genuine troglodytes, said by the Indians to be very poisonous.

THE next mound excavated by us in this neighbourhood was situated in the valley to the east of the last two, and about half a mile distant from them. It was one of the most remarkable mounds I have ever excavated, not because of the number, variety, or beauty of the artifacts which it contained, for it was singularly poor in this respect, but owing to the fact that it was a house mound, which had been used secondarily for sepulchral purposes. Not once, however, but at no less than three different periods, had it been re-occupied, and on each occasion the owner had been buried beneath his former house.

The mound appears to have started as a low platform, built of rubble, and covered with hard mortar, which formed the floor of the original house. Later, the owner, apparently wishing for a better-class house, covered this first floor with a layer of rubble 16 ins. thick, upon which he placed a solid floor of thick cement, like mortar, and, with this as a foundation, built himself a new house, the walls of which, to a height of 2 ft., were constructed of

cut stone, and above this of wood, the roof, no doubt, being of palm-leaf thatch. Only one of these walls is now left standing, so it is impossible to estimate with any degree of accuracy the original dimensions of the house. This form of house—low stone walls, with wooden superstructure—seems to have been exceedingly common amongst the Maya of the New Empire, as we know from the accounts of the Franciscan Fathers who first visited the Itzas of Peten that it was in use amongst them in the construction of their temples and better-class dwellings, and I have found numerous mounds covering structures of this kind around Corozal during my excavation of tumuli belonging to the New Empire. The owner of the house having died, a long hole was made in the floor of his new house, down to the level of the floor of the first house. In this was constructed a small cyst, or chamber, some 5 ft. 6 ins. long by 2 ft. broad, the sides formed by upright flags, the roof by larger flags laid across them, and in this the body was laid, fully extended on its face, the left arm, bent at the elbow, lying beneath, so that the left hand touched the right elbow. The skull was deliberately fractured at the time of burial with a large stone, which was left *in situ*, and, curiously enough, not a single ornament, weapon—or, in fact, object of any kind—accompanied the corpse, a most unusual circumstance amongst the Maya of any period. The skeleton was that of a young man, just over 5 ft. 2 in. in height. Judging by lesions found on the lower end of the right humerus, it seems not improbable that he died of syphilis. After this, the site was probably abandoned for some time, till a second owner, finding a convenient truncated pyramid ready to his hand, adjacent to excellent cornlands, erected a second house, by the simple expedient of covering in the whole of the original structure with a

layer of small rubble, and laying a stout mortar floor on top of this, to form the foundation of a new stone-walled house, almost exactly similar to the first one, except that the walls were only 16 ins. high.

Outside the walls of this house the cement floor was extended for a couple of feet, and immediately beneath this extension two interments were found, one of a young man, the other of a very old, entirely toothless individual, the latter of whom suffered from some chronic inflammatory bone disease, judging by the appearance of the outer extremity of the right clavicle, or collar-bone. With them was found a single perforated shell disc, probably intended for a gorget, about the size of a five-dollar piece. The bones belonging to these two skeletons were mixed together indiscriminately, and it looked as if the two corpses had been simply dumped into a pit dug beneath the extension of the cement floor, huddled together casually.

They represent the second occupation of the house, and may have been father and son. They were evidently buried at the same time, and died possibly of some epidemic, almost simultaneously. The bones were not in such good preservation as those of the deeper burial, though the latter were obviously older, the reason probably being that the first interment was, owing to the cyst in which it was contained, and the numerous floors which overlay it, almost completely protected from moisture, whereas the second, lying under the edge of the outward extension of the house floor, was not.

After this second interment the site was no doubt again abandoned for a time, till a third occupant came along, and covered the second site over with a layer of rubble about 18 ins. thick, on top of which he proceeded to construct another smooth floor of mortar. His house,

however, apparently had no stone walls, or at least no trace of them is now to be found. On his decease his remains were simply laid upon the floor of his house, and a pyramidal cap, composed of earth, rubble, and blocks of limestone, built over them, to form the summit of the mound. Of this last interment only a few fragments of bone remained, almost disintegrated, owing no doubt to the fact that rain-water could soak through the porous layer which covered them, and it was impossible to tell the age or sex of the individual to whom they belonged. With them were found two minute red pottery vessels, each holding about one ounce, and two peculiar, oval pottery rings, scalloped on their inner edges, such as I have never seen before.

Over the whole mound, covering in its dead with a pall of nature's own providing, was a layer of vegetal humus, averaging about 1 ft. in thickness, indicating that at least several centuries must have passed since the last interment had been made.

This mound presents many interesting features, and several intriguing problems, none of which, probably, will ever be solved. Why was it chosen for re-occupation as a house site twice after the first owner had been buried beneath it? As a rule, the very fact that a house site had been used for this purpose rendered it taboo amongst the ancient Maya. How is it that two individuals of the second occupation come to have died simultaneously, and to have been buried higgledy-piggledy, in such a curious and unusual situation, outside the house? Lastly, how may one account for the curious fact that individuals of both the second and first occupation suffered from some form of inflammatory bone disease, closely resembling syphilis?

There were a great number of mounds scattered

around near Benque Viejo, of which we opened six in all, every one of which proved to be a house mound, beneath which burial of the owner had been effected. In no case were ornaments, weapons, or implements of any interest found, and one had to come to the conclusion either that the former inhabitants of this region were very poor, or very stingy with the dead, or that the custom of burying with them some of their belongings, for use in the next world, prevalent throughout the whole Maya area, was not in vogue here. As a rule it is quite easy to tell, from the contents of the grave alone, the sex, social condition, and approximate age of the individual buried therein. With the child were buried its toys and small ornaments, and, very rarely, a terminal phalanx of the mother's little finger. With the housewife were placed her corn-rubbing stone; malacates, or spindle-whorls, of pottery; domestic clay utensils representing the working part of her life, together with her few poor ornaments—a string of clay, stone, or shell beads, and wristlets, gorgets, or earplugs of the same material.

With the noble, in his elaborate stone cyst, were placed his carved jade, serpentine obsidian, and mother-of-pearl ornaments, his finely chipped flint and greenstone weapons, and his beautifully painted pottery. With the warrior were his flint spear, and arrow-heads, and his shield; with the fine lady her iron pyrites, or obsidian mirror, her depilatory, and the red ochre, charcoal, and other coloured powders used in her toilet, together with her delicate jade earplugs, wristlets, necklaces, and bracelets. Landa tells us that it was the custom to bury with the priests their painted manuscripts, on astrology, medicine, history, divination, and so on. Unfortunately no explorer in the Maya area, as yet, has come across a burial of this kind, which would be

inevitably of surpassing importance in the apparently hopeless task of deciphering the hieroglyphics on the monuments, and it is doubtful whether they ever will do so, as no perishable material, howsoever tough it may be, seems to be able to withstand, through the centuries, the effects of the great heat and moisture encountered throughout a great part of the year over the whole region.

From Benque Viejo we went on to Arenal, a small Indian village situated exactly on the boundary line between Guatemala and British Honduras, so that part of the village is in the Republic, part in the Empire. An *aduana*, or Custom House, is maintained here by the Guatemala Government, to prevent the smuggling of chicle, that precious constituent of chewing-gum, out of the Republic—an extremely hard job, as the whole country is covered with dense primæval forest, through which it is not difficult to cut a narrow *picado* sufficiently wide to accommodate loaded mules, so that, while the *celador*, or minor customs official, is occupied, say, to the north of the village, investigating the truth of a carefully prepared report, which the smugglers have manufactured for his benefit, to the effect that smuggling is going on in that neighbourhood, or even while he is engaged in weighing a genuine consignment of the latex, brought in in the regular way through the village, a big cargo is run through on mule-back, to the south, and safely across the frontier, before anyone in authority knows what is going on. We were told that about ten miles to the west of Arenal some ruins had been discovered by a chiclero hunting through the bush for sapodillo-trees, and that he had noticed at least one large upright stone monument, covered with sculpture, but, having run across the place accidentally, and naturally taking no interest in archæology, he had not thought of the matter

again, till he heard the report of a reward of $25 gold for every stela found recording a date. Unfortunately when we arrived in the village this man was absent in the bush, at a chicle camp somewhere in Northern Peten, where to search for him would have been even more futile than looking for the proverbial needle in the bundle of hay. Our only chance of acquiring the desired information was to return in the dry season, when chicle sap ceases to run, and all the chicleros come in from the bush. In the little palm-leaf shack of an old Indian woman, we came across a beautiful little circular saucer-like vessel of fine polished red ware, standing on three long, hollow, cylindrical legs, obviously the work of the ancient Maya. The old lady was very unwilling to part with it, as she was in the habit of using it to break up dry tobacco-leaf, and various bush herbs, for her corn-husk cigarettes. I offered her a good price, and promised to provide a beautiful green glass butter-dish of about the same size, but minus the legs, for the purpose. She still declined to make a deal, however, and I discovered later that her real objection to part with the vessel was based purely on sentimental grounds, for it appeared that it had been discovered by her only son, who had since died, in a cave some three or four miles from the village, and that it was the only memento of him which she possessed. He had, so she said, come across the cave accidentally while hunting game in the bush, and, seeing this little vase quite close to the entrance, had brought it home as a present to his mother, but had not taken the trouble to explore the cave, and, in fact, never returned there.

After considerable difficulty, Muddy found an Indian who knew the cave and was willing to guide him there. It was situated in a limestone ridge, about three miles

south of Arenal, and was approached by a small, insignificant opening only 3 ft. high. This led, however, to a room of considerable size, in which one could stand upright comfortably. Beyond this the cave again narrowed down to a passage 3 ft. high, which ended abruptly in a blank wall. The entire floor was covered with a layer of cave-earth, which, in those places where he made excavations, was found to be no less than 7 ft. thick, the upper two feet being of almost black, and the lower five of chocolate brown, colour. Pottery fragments were found at all depths in this earth covering, wherever excavations were made, though they were of more frequent occurrence near the surface. Fragments of coarse, domestic vessels and polished red ware predominated, but a few pieces of polychrome ware, with geometrical and other devices executed upon them, were also found.

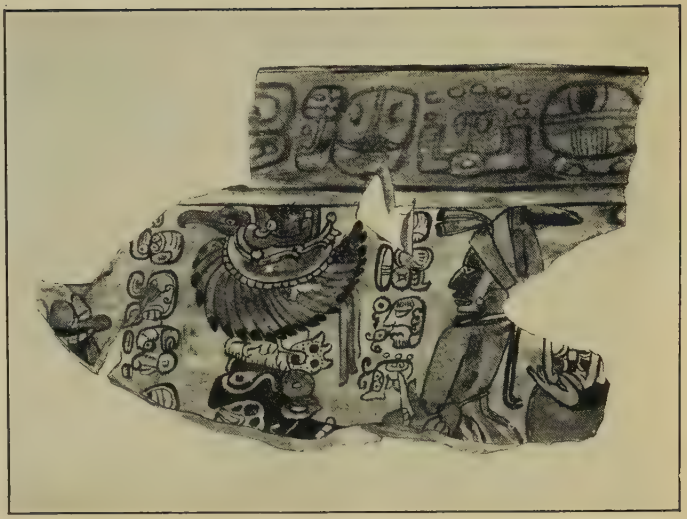
At the extreme end of this cavern he encountered a small cairn of large stones. He removed these carefully, but found nothing beneath. On making an excavation in the cave-earth on the site of the cairn, however, he came upon the skeleton of a child of perhaps six years of age, at a depth of one foot beneath the surface. The bones were stained a dark brown, and had evidently been preserved by the action of the cave-earth. It was impossible to tell in what position the child had been buried, as the bones were mixed together indiscriminately. With them was a small necklace of shell beads, a little obsidian knife, and the terminal phalanx of the little finger of a small adult. The beads were, no doubt, worn by the child when alive, and probably left round the neck of the little corpse when it was buried. The phalanx was almost certainly that of the mother of the child, cut off with the little knife of obsidian at the time of its burial, and interred with it, partly as a token of

grief, and partly, probably, with some idea of still retaining actual physical contact with the beloved dead, as many people, even in this practical and unsentimental age, express a desire to be buried with or near someone to whom they have been attached in life. It made us realise how little human nature has altered, fundamentally, with the passage of the centuries. More than once the last joint of the little finger has been found buried with the bones of a child, and there can be but little doubt but that it was quite a common procedure amongst the ancient Maya. Except, however, in those cases where the phalangeal bone, together with the knife which severed it, has been preserved within a small earthenware pot, one is very apt, even on unearthing the skeleton of a child—and this is by no means a common find, for the delicate bones have usually perished, except where, as in the present case, they have been preserved by some peculiarity in the medium in which they were buried—to overlook such an insignificant object as the tiny last phalanx of a Maya lady's little finger. By far the most interesting object found with these bones was the fragment of a polychrome vase or bowl, irregular in shape, and measuring 8½ ins. in length, by 5½ ins. in breadth. It was of fine, thin, hard pottery, and had, unfortunately, been broken up into a great number of small pieces. When these were joined together, it was found that the inner surface of the vase had been painted a uniform light reddish-yellow, while upon the outer surface had been most exquisitely depicted, in red, black, and yellow, on a light yellow background, a scene from Maya life, with explanatory hieroglyphics. Two figures are shown, the head and headdress only of the one on the left remaining, while the whole of the one on the right, above the hips, is still preserved. The face of the figure on the

left is painted black, a white margin being left round the eye, and a white curved line below it. Round the mouth, also, is a curved line, upon which are a number of black dots. The face is that of an elderly man, with a prominent chin and nose, and probably represents a god. The headdress is formed of a curious squat bird, with long, curved beak and powerful claws, probably intended to represent an eagle or vulture. An almost exactly similar, highly conventionalised bird was depicted upon a vase found by me at San Antonio, on the Rio Hondo, some years ago. In this case, however, the bird was accompanied by a number of other curious mythological beasts, and not used as a decorative motif. In front of this face is a row of hieroglyphics, beautifully executed in fine black lines, on a light yellow background. The three uppermost of them are perfect, the fourth partially broken away. The figure on the right is that of a younger individual, naked to the waist. He wears a curious turban-like headdress, with projections, apparently of some stiff textile, both behind and in front. The face is painted black, with a white line running down in front of the ears, and beneath the chin. In the ears are large, round, red earplugs. The left hand holds an object which may be a flint knife. Immediately in front of this figure is a vertical row of four hieroglyphics, all, with the exception of the topmost, which is partly broken away, in an excellent state of preservation. Above these two figures, and surrounding the rim of the vase, is a band of much larger hieroglyphics, painted in dark red on a lighter reddish-yellow background, four of which are in an excellent state of preservation.

This fragment of pottery constitutes one of the most interesting and important discoveries, excepting only stelæ and dated monoliths, made in the Maya area during

FACES PAINTED ON POLYCHROME POTTERY. (*See p.* 196)



ARENAL. POLYCHROME POTTERY FROM BURIAL CAVE

recent years. I have no hesitation in asserting that it is, without exception, the most beautiful example of aboriginal ceramic art ever found on the American continent. It actually depicts a scene from Maya life, or mythology, with two human, or divine, individuals, and no less than nine perfect hieroglyphics, explanatory of the scene. Unfortunately none of these hieroglyphics are calenderic in significance, and as these are, with very few exceptions, the only ones which we understand, the inscriptions are at present incomprehensible to us. They may record the names or titles of the individuals depicted, the nature of the occupation in which they were engaged, events which occurred in their reigns, or, indeed, almost any event of contemporary interest. This inscription is unfortunately a closed book to us at present, but, with the steady work constantly in progress on the elucidation of the Maya glyphs, its text is certain, sooner or later, to be deciphered, when it will constitute nothing more nor less than a page from a Maya codex—priceless manuscripts of which only three, escaping the holocaust of Bishop Landa, have been handed down to us—written, not, like the others, on Maya fibre, but on pottery. Of the three known codices the finest in every way is that known as the Dresden Codex; the others, compared to it, are crude daubs, both in draughtsmanship and colouring. The resemblance, both in the technique employed in drawing the human figure and writing the hieroglyphics, between this codex and the potsherd now under discussion is so strong that one cannot help coming to the conclusion that both belong to approximately the same period, and not improbably originated in the same locality.

After the discovery of this wonderful piece of pottery, needless to say, Muddy searched the earth forming the

floor of this cave with a fine-tooth comb, but, although he found, literally, car-loads of ordinary domestic pottery, and of the red polished ware so dear to the Maya housewife's heart, no further fragments of polychrome ware were encountered; but, had this been our only find, we should have considered ourselves well rewarded for the entire trip. Traces of other burials were found in two situations in the cave, in the form of fragments of the enamel from human molar teeth buried beneath the earth. One of these was accompanied by the tusk of a peccari, or wild pig, very much decayed, little but the enamel being left.

At almost every depth beneath the surface, in the earth covering the cave floor, were found compact deposits of grey ashes, mixed with fragments of charcoal, from 1 to 2 ft. across, by 3 or 4 ins. thick. It seems not impossible that these deposits of ashes are the remains of human cremations, in which even the bones had been reduced to dust, for it is difficult to conceive why, otherwise, the bones of the child should have been so remarkably well preserved, whereas those of adults—who must undoubtedly have been buried in the cave—have completely disintegrated, especially as the cave earth seemed to have had, on the child's bones, a powerfully preservative effect.

The questions which naturally present themselves to one on contemplating this beautiful little example of the potter's art are: Why was it buried with a child, whose remains are usually accompanied solely by its toys and ornaments? Why did the rest of the vessel not accompany this piece? And that it did not, we made absolutely certain. Why were neither fragments nor whole vessels of the same type of pottery found in the cave?

The answer to these three questions is, I think, the same. The potsherd *was* a toy, with which the child played when alive, and so came to be buried with it, not as a votive offering to the gods, or the dead, but for its own personal use as a toy in the new life upon which it was about to enter.

Where the child or its parents picked up this piece of pottery, it is, of course, impossible to say, but probably in some cave at no great distance from the burial-cave. I wish I knew, for pottery such as this, depicting scenes from Maya life fifteen centuries ago, each picture accompanied by explanatory hieroglyphics, would be almost equivalent to the discovery of a new Maya codex, the dream of every worker in the Maya field.

There can, I think, be no doubt but that the fragment was merely a plaything of the child's and that the other fragments of the vase never accompanied it. One great drawback to working in this little cave was the presence of great numbers of small snakes, all of the same species. They were from 2 to 3 ft. long, slender, and coloured a dull greenish black above, shading off to a lighter green below. The Indians called them *xcohi*, and said they were as poisonous as a yellow-jaw, a statement which fortunately Muddy had no occasion to prove or disprove, though the Indians are apt to endow every snake that crawls with poisonous properties, possibly because it greatly enhances the reputation of their snake doctors, as these practitioners treat every snake-bite in the same way, and naturally a large percentage of non-poisonous bites raises the " cure " percentage very satisfactorily. These little reptiles were a great nuisance, as they were so sluggish that they would hardly get out of one's way, and their subdued colouring, in the dim light, rendered them sometimes difficult to avoid. Eight were killed on the

first day, but a fresh supply always took the place of the dead, coming apparently from the low passages, little more than crevices, which led out from the side of the cave in all directions. This snake must, I think, be a genuine troglodyte, as I have never encountered it anywhere else.

CHAPTER V

Frank Blaucaneaux, a hardy bushman and naturalist—In search of specimens in unexplored bush—A curious phenomenon—He goes to investigate—Joe's fate, and his passing—What killed Joe—Blaucaneaux investigates, and determines to follow the trail of Joe's slayer—He trails it to a cave, towards evening—Tracks left by the beast in the cave-earth—Blaucaneaux gives up the chase—He loses himself in the bush—Later, with Indians, he tries to relocate it, but is unsuccessful—The tale told Muddy by the Indians of Arenal—We arrive at the ruins and put up bush-houses.

A CURIOUS tale, in connection with the caves in this region, was told me by my friend, Frank Blaucaneaux, J.P., whose natural history work in Central America in connection with that monumental publication *Biologica Americana Centrale* is well known.

Many years before, he had been working near the head-waters of the Mopan River, to the north-west of Arenal, a locality which at that time was completely uninhabited, and covered with virgin bush, swamp, and sour-grass savannah, untraversed by even a wandering chiclero, for it was in the days before the growth of the chewing-gum habit to its present proportions, and even to-day, so sparse is the population, that one might travel through the bush from Arenal clean into Tabasco without seeing a habitation, a human being, or a sign of agriculture. Blaucaneaux, however, was a hardy bushman, for whom the uninhabited forest held no terrors, and, for long months at a time, accompanied only by his faithful negro servant Joe, he was wont to disappear into the bush, returning with valuable collections of bird and animal skins, insects, and rare plants.

One day, when tramping through the forest with Joe, they suddenly debouched from the high bush into a little circular valley, covered with sour grass. In the centre of this grew a small patch of thick scrub, from the middle of which shot up the straight, smooth trunk and graceful foliage of a good-sized cuhoon-palm, standing out above the surrounding undergrowth, like a giant amongst pigmies.

The day was a very still, sultry one, and they were both hot and tired from their long hike since early morning through the bush, so they sat down in the shade to rest for a while by the side of the little valley.

Not a breath of air was stirring ; the rays of the afternoon sun beat down fiercely on the wilted-looking sour grass covering the floor of the valley in front of them, over which the air was shimmering with heat waves, and the foliage of even the tallest trees was still, as if carved in metal.

They were lying thus in the shadow of a great wild-cotton tree, smoking their pipes, idly watching the myriads of little lizards, the only living things, except the butterflies, with energy enough to move rapidly about in the terrific heat. They enjoyed the relaxation after the hard work of chopping a *picado* through the undergrowth, which had occupied most of their morning, and were probably well on the way to the afternoon siesta, when they were suddenly jerked out of their somnolence by an extraordinary phenomenon, which attracted the attention of both at almost the same instant. The great mop-like head of the cuhoon-palm, which stood up straight like a sentinel, for perhaps 20 ft. above the patch of scrub, in the middle of savannah, suddenly, as if endowed with its own motive powers, began swaying gently to and fro, apparently agitated by a heavy breeze, though not a

breath of air was stirring, and the rest of the bush showed not the movement of a leaf.

"Joe," said Blaucaneaux, "go see what makes that cuhoon shake like it was blowing a gale."

"Massa, me no like fo' go near dem cuhoon, h'it Obeah foh shu'," replied Joe, who, brave as the next man to meet the ordinary hazard of the bush, was a terrific coward in the presence of anything that looked to him like Obeah or Voodoo.

"Go along, boy," returned Blaucaneaux, who knew Joe's little failing, chuckling to himself, "the longer you wait the less you'll want to go."

Very reluctantly Joe picked up his gun, and began to creep slowly towards the patch of scrub, where the cuhoon-palm was still waving merrily to and fro at intervals, just as a boy shakes a young cherry-tree, stopping every now and then to pick up the fallen berries.

At length he disappeared into the scrub, and for a few minutes all was quiet. Then suddenly through the stifling little valley there echoed, from the direction of the scrub, a terrifying succession of agonised shrieks, such as only a negro in awful terror can give utterance to. These died down almost as quickly as they had arisen, leaving the hot silence unbroken, save by the chirrup of an occasional cicada.

Blaucaneaux, stretched in the shade, awaiting Joe's return, hearing the shrieks, jumped to his feet, and rushing down across the sour grass towards the little island of scrub, pushed his way in through the dense undergrowth till he arrived beneath the cuhoon-palm. Here, he noticed that the bush had been trampled down, apparently by some heavy animal, leaving a clear space of considerable size all round the tree. In this cleared circle lay the unfortunate Joe, still groaning feebly. He

lay on his back, his shirt ripped from his body, his chest and abdomen gouged in a series of great parallel furrows, the left side of his face, from forehead to chin, hanging down in bloody shreds, and hardly recognisable as a face at all. Blood was pouring from his wounds, and it was obvious that there was nothing to be done for him. Blaucaneaux lifted the poor fellow's head, and managed to pour a little rum down his throat from his own pocket-flask, wound the rags of the shirt around the terrible wound in the abdomen, from which the bowels were protruding, and generally made the man as comfortable as possible. After the second driblet of rum, Joe appeared partially to recover consciousness.

"What happened to you, boy?" said his master. "What struck you?"

"Hi, Massa," whispered the lad, who could hardly articulate, partly owing to his rapidly growing weakness, partly to his torn mouth, "I find de old debil himself, under dem tree; him rip me up, den run fo' bush." The effort was too much for him, his jaw fell, his eyes opened widely, his limbs stiffened for a moment, then the groaning ceased, and he was gone.

Blaucaneaux, as soon as the boy had passed, realised that his own position was by no means a desirable one, for whatever beast had attacked and killed the powerful young negro, apparently with a few swipes of its claw-armed paws, might very well return, with a view to dealing with him. Before doing anything else, he determined to perform the last offices for the faithful Joe, and, placing his loaded Winchester within easy reach, eyes and ears alert for any sound of an approaching enemy, and frequent nervous glances behind his back, he rapidly scooped out a shallow grave in the soft vegetal mould beneath the cuhoon-palm, with his machete, and placing the corpse

within, covered it with earth, leaves, branches, and a few loose chunks of limestone which he found lying about. Next, he made a careful survey of the bush in the neighbourhood of the cuhoon-tree, and found a pretty obvious trail, along which some heavy and powerful animal, in its passage through the scrub, had bent and broken branches and torn off leaves and twigs.

Blaucaneaux was a strong, self-reliant man, used to dealing with critical situations. He was, moreover, well armed, with machete and Winchester, but before all he was a very keen field naturalist, and the prospect of discovering a new mammal, of a size and fierceness such as its attack on the negro connoted, tipped the scale on the side of foolhardiness, and, instead of following the sensible course, turning tail, and making off as rapidly as possible in the opposite direction to that in which the animal's tracks led, he determined to follow it up, and, while his courage was at the stickling point, started off on the easily followed tracks, which led nearly due west through the bush. Soon the scrub began to thin, and the trail debouched upon the open sour-grass savannah, where, as the long, coarse grass was all bent in one direction, it was just as easy to follow as through the scrub. Crossing the savannah, the tracks entered the high, virgin forest on the opposite side, through which they continued for perhaps a couple of miles, following an almost due westerly course towards the base of a range of low hills. The beast had next turned into the dry bed of a stream running parallel with the range, and, as this was covered with great boulders of limestone, on which no vegetation grew, it became exceedingly difficult to follow the tracks. Here and there, however, stones had been turned over, and creepers, intruding from the surrounding bush, had been torn. Slowly and cautiously, by following

these signs, Blaucaneaux found himself, just as it was growing dusk, at the mouth of what appeared to be a large cave in an almost perpendicular limestone cliff, at the foot of a high hill. He entered this, in the rapidly failing light, with considerable misgivings, and there, on the floor of the cavern, which was covered with a smooth layer of soft brown cave-earth, he saw for the first time, clearly imprinted as if they had been made on plaster of Paris, the footprints of the animal he was following. These he described to me as almost exactly like the thumb and two first fingers of a gigantic human hand, each digit armed with a great claw.

Blaucaneaux, realising that to linger in the neighbourhood, much less to endeavour to explore the inner recesses of this cave, once night had fallen, would be merely asking for trouble, at once started on the back track towards the little savannah where the tragedy had happened, intending to return in a few days, with a good force of well-armed Indians, and explore the cave with pitch-pine torches, having first blocked up the entrance and thoroughly smoked out the interior with burning chilli-pepper bushes. Directly the sun set, it became almost pitch dark beneath the high bush, where, even at midday, a dim religious light prevails, and, good a bushman as he was, Blaucaneaux must somehow have got switched off the trail, for before long he found himself completely lost in the bush.

There was nothing for it but to camp where he was, and fortunately the night was fine and dry, with no prospect of rain, as it was in the middle of the dry season, so, unrolling his blanket, and spreading it on the forest floor, over a few coroza leaves, he was soon asleep. On waking, next morning, he had not the vaguest idea where he was; fortunately, however, he always carried a small

pocket compass, and knew that by following a north-easterly direction he was soon bound to come in contact with the Mopan River, or one of its branches.

He arrived safely in the village of El Cayo within a couple of days, and shortly afterwards, with a few Maya Indians from San Antonio, set out to try and find again the cave of the footprints. This, however, he was never able to accomplish, notwithstanding prolonged and careful search ; indeed, to rediscover a single cave in a limestone country, literally honeycombed with caves, and covered with dense virgin bush, is a practical impossibility, unless one has taken bearings or is possessed of phenomenal luck. It is possible that, had Blaucaneaux stuck to the wandering life of the field botanist and zoologist, he might, in time, have rediscovered the cave, but shortly afterwards he went in for mahogany contracting, which tied him down a good deal to El Cayo, and gave him very little leisure for bush exploration.

On two occasions since this adventure of Blaucaneaux's there have been reports from Cayo of women who, while walking in the bush, had been seized by some animal, their clothes torn, and their bodies badly scratched. In both cases they were so scared that they could give no very coherent account of what really happened to them, except that some large animal came up behind them, seized them in its arms, tearing their clothes and scratching their skins, carried them for a short distance, and then dropped them and went off into the bush. They could give no sort of description of the beast, beyond the fact that it was large, and covered with extraordinarily long, stiff hair.

I must admit that in visiting these caves at Benque Viejo, and Arenal, I had hoped to be able to follow up this curious tale of a mysterious animal which could kill

a full-grown, powerful negro with a few blows of its paws, and appeared to dwell in a remote cave somewhere at the back of the Cayo district. I found no tracks of such a beast in any of the caves I visited, nor did I hear any further tales of its having been seen by anyone. Muddy heard, however, from the Indians at Arenal, that they had found, on the trunk of a large, rough-barked tree, at a height of about five feet from the ground, distinct marks of some animal having scratched, or rubbed, itself against the rough surface, and, adherent to this, were a number of long, thick, very stiff hairs, together with a good deal of white dust, as if the beast had first rubbed himself against the wall of a limestone cave, and then transferred some of the lime which had adhered to his hide to the tree.

CHAPTER VI

Survival of their ancient religion amongst the Maya—The old "Men" of Paradise—Isolation loved by the Maya—A prophet, priest, and physician combined—A prophet without honour in his own village—A peculiar pharmacopœia—An ancient name—The priest caught at an undignified occupation—Good and sufficient reasons for matrimony—Advantages of being a Men's wife—The altar for the Cha Chaac ceremony—Essentials in its construction—A ceremony to the old gods only—The inconspicuous place occupied by the crucifix—The prayers used—Discovery of what appears to be Old Empire pottery at Santa Rita, a Toltec site—Nature of the devices on the polychrome plates and vases—Importance of the pottery as a guide to Maya Old Empire trade routes—Burial-mounds opened near the pottery discovery; their contents probably much later—A fine pottery head found near the head-waters of the Rio Hondo—An act of vandalism.

I PUT in a couple of weeks, in February—while awaiting the arrival of Gruning and Clive-Smith, of the British Museum, for the second expedition to the ruins on the Mojo River—at Corozal, in the north of British Honduras. I had a double object in view: first, to see the ancient Maya ceremony proper to the cutting down of the bush for the formation of the new corn plantation, and, later, to open a few mounds at Santa Rita, where, some years ago, I discovered the wonderful painted stucco walls of a temple, covered with figures of Toltec warriors and prisoners, amongst which were a number of Maya hieroglyphics, probably dating the events recorded; the whole, undoubtedly, representing the conquest of the native Maya rulers of the region by an invading Toltec force from Yucatan.

The native priests, or *shamans*, who perform the ancient ceremonies, are known as Chaacs and Mens. Of

these, the Chaacs hold the higher rank in the Maya hierarchy, corresponding, perhaps, to the parish priests, or rectors, while the Mens represent the curates. As is only to be expected, with the growth and spread, throughout the Indian villages of the Colony, of various brands of Christianity, members of both orders of priests have become rarer and rarer, for the perpetuation of their ancient religious ceremonies is looked upon as anathema by all Christian sects and denominations alike, with a unanimity as complete as it is rare. In Mexico, Guatemala, and other parts of Latin America—where, owing to the spread of Socialismo, the Church seems to be losing not only her former wealth and power, but to some extent her hold on the minds of the people—there has been, of recent years, a considerable recrudescence in the old religions of the Indians, which, surprising as it may appear, have succeeded in surviving four centuries of systematised suppression of the most strenuous kind. In British Honduras, however, where complete religious liberty exists, Christianity has ousted almost entirely their old religion amongst the Mayas, and probably the old Men of Corozal is the last representative of the ancient priesthood left in the whole of the northern district of the Colony. This ancient Men lives in a tiny village named Paraiso, or Paradise, buried in the bush some seven or eight miles from the village of Corozal. It contains only five little palm-leaf and stick huts, unsociably sprinkled at wide intervals along a very much overgrown bush trail. There seemed nothing about the village to justify its high-sounding name; indeed, I found it far from an earthly paradise, for I was bitten by mosquitoes and burrowed into by red-bug there; yet it possessed the one quality most essential to happiness in the Maya mind, its complete isolation and freedom from

Maya Shaman invoking Ancient Gods before Altar of Offerings

Kekchi Woman, Daughter, and Grand-daughter, Descendants of the Great Builders

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the visits of outsiders connected with the land, the law, taxation, and religion, or attracted by mere curiosity. The Men himself proved to be a little, wizened old man, well under 5 ft. in height, and with hands and feet not larger than those of an average twelve-year-old child. His face was saddle-coloured, and covered with a network of fine wrinkles, criss-crossing in every direction, with a few long black hairs sprouting out in unexpected places. Notwithstanding his seventy years, his intelligent black eyes were quick and bright, and his mat of coarse black hair thick as ever, and without a grey thread in it. He wore the customary short cotton drawers, with the tails of a pleated shirt hanging loose outside them, and *xanap*, or tapir-hide sandals, held on with coarse henequen rope, the usual costume of the modern Maya who has not come in contact with civilisation, a costume which, like his house, his food, his language, and his agricultural methods, has probably undergone little, if any, alteration during the past two thousand years. Communication with the old man was a little difficult as he was extremely deaf, knew no word of any language but Maya, and spoke habitually with the intonation of a priest going perfunctorily through a service which he is anxious to finish. He was extremely unpopular with his fellow villagers, as they credited him with the powers of an Obeah man, as well as those of a Men, and he fostered this reputation by habitually prophesying evil to anyone who provoked him. If, for instance, a neighbour's pigs got into his *milpa* and ate the corn, or a neighbour's dog killed one of his chickens, he would confront the unfortunate owner, and solemnly prophesy, "You will die of fever within a year"; "You will suffer from granos, and be unable to work for months"; "Your corn plantation will be a failure"; "Your wife will leave you, and go off

with another man"; or some similar misfortune. Being a shrewd old man, with a comprehensive knowledge of his neighbour's affairs, his prophecies were not infrequently fulfilled, in which case his reputation as an Obeah man, if not his popularity, was greatly enhanced.

Like all the old priests, he was something of a medicine man, his pharmacopœia being derived partly from the roots, fruits, gums, and leaves of bush plants, and partly, like those of our own medical practitioners of the Middle Ages, from weird empirical remedies, such as an incinerated cave-rat, a paste of crushed ants, chopped up tigers'-whiskers, etc. I think that, while his service as a Men, to repeat the appropriate prayers and make the prescribed offerings to the gods—on such occasion as the planting and harvesting of the corn, the birth of a child, the launching of a new dug-out, or the completion of a new house—were being less requisitioned every year, his reputation as a medicine man was growing. He would not give me his name, nor, at first, would any of the other villagers, who were apparently afraid of offending him, but later I discovered that, like an actor or a prize-fighter, he possessed two names, one his own, the other used for professional purposes. Curiously enough, the latter was Cobà, the name of the great ruined Maya city, which I discovered two years ago in north-eastern Yucatan. It may be that before the coming of the conquerors to the New World the sons of this ancient sacred city were devoted to the priesthood, as were those of the tribe of Levi amongst the children of Israel, and took as a generic title the name of their city, and that this last representative of a vanishing hierarchy is the lineal descendant of one of the great priests of Cobà. Our first visit to the Men was unexpected, and could not possibly

have been more inauspiciously timed, for we surprised him in the little shed behind his hut, through whose flimsy stick walls the interior was entirely visible, in the extremely undignified occupation, for a man, much less a Men, of grinding corn on a stone *metale*, or rubbing-stone. He was naked to the waist, and the perspiration which streamed from his face was freely watering the *massa*, or corn paste. Like all great men, however, he showed no self-consciousness; indeed, he was probably less embarrassed than myself, and, seizing his shirt, first mopped his sweaty face and chest with it, then donned it, and grunted a salutation.

His young wife, who was also in the kitchen, was presented to us, and then we discovered why the old man had been engaged in the feminine occupation of grinding corn, for the poor girl was suffering from paraplegia, her right arm and leg being almost completely useless, probably as a result of infantile paralysis, so that she was entirely disabled from following the main occupation of the Maya woman—grinding corn for the family tortillas, day after day, month after month, year after year, from the age of eight or nine years, until death provides a welcome rest from this eternal labour. The wife was an extraordinarily pretty and vivacious young woman, of about eighteen or nineteen, with long black hair, large laughing brown eyes, a clear ivory complexion, and a splendid set of teeth, which, notwithstanding her lameness, were constantly exposed in an ingenuous smile. How such a pretty, vivacious girl, notwithstanding her disability, came to marry such an old goat as the Men was at first a complete puzzle to me, till I discovered that he had guaranteed, in the event of her marrying him, to restore completely their use to her paralysed limbs! Though she

was physically incapacitated from grinding corn, she had acquired a remarkable dexterity in husking it and separating the grains from the cob, an occupation in which she was engaged when we first met her. She held the ear firmly with the toes of her left foot, which she had trained to be almost as useful as an extra hand, then, with a hardwood skewer, grasped in the left hand, she had the husk off in a twinkling, afterwards separating the grains from the cob by cradling it in her lap, and forcing them off by pressure applied with an empty cob, held in her left hand. There must have been, I imagine, other compensations for the Men's wife, in addition to the prospect of a cure, for she wore a couple of really beautiful filigree gold chains, of old Indian workmanship, around her neck, reaching almost to her waist—doubtless the gifts of a doting husband.

I had seen some years before, in Corozal, what is known as the Cha Chaac ceremony performed—a sort of harvest thanksgiving, to celebrate the gathering in of the corn crop. It was a long and elaborate ceremonial, necessitating several days of preparation, and the construction of a *pib*, or great hole in the ground, where various Indian ceremonial foods were wrapped in plantain- and palm-leaves, placed on red-hot stones, and covered over with earth till they were cooked. Finally, a portion of each dish, and a cup, or rather calabash, of each drink having been offered to the gods, the rest were eaten, to the last morsel, and drunk to the last drop, by those participating in the ceremony.

The ceremony which I now witnessed was a much less elaborate affair, and consisted of food offerings and prayers to the Chaacs, and other gods of fertility and growth, on the occasion of the cutting down of the bush

for the new *milpas*, a procedure which generally takes place during the month of February. The bush is allowed to dry in the sun, then burnt off, and finally planted in corn at the commencement of the rainy season.

When we arrived on the scene we found the altar erected beneath the shade of a huge mamaia-tree, whose branches drooped all round, nearly reaching to the earth, and whose thick foliage, almost excluding the sun, produced a light so dim and religious as to render photography practically impossible. The altar itself was nothing more than an oblong table, some 3 ft. high, whose top was composed of straight green sticks laid side by side. The whole was arched over by boughs of the sacred jabin shrub, and the top was covered with leaves of the same plant. The most essential thing about the altar was that everything employed in its construction must be *yax*, as the Maya call it—that is fresh, green, or new. The sticks for the arch, top, and legs, together with the boughs of jabin, must all be freshly cut on the morning of the same day that the ceremony takes place. Attached to the front of the altar was a very long thin candle of native black beeswax, with a cotton wick, which had also to be *yax*, and made specially for the occasion. When I saw the ceremony performed to celebrate the harvesting of the corn, the Christian saints were invoked alternately with the old gods, and a large crucifix was a very prominent ornament at the back of the altar. On this occasion, however, the Christian *santos* were entirely omitted, both from the prayers and food offerings, and so far as I could see, the crucifix was conspicuous by its absence. On calling the attention of the Men to this, he grinned and said, " Oh no, señor, you are mistaken ; the Santa Cruz is in the usual place on

the altar." On which he moved one of the large calabashes, and, parting the jabin boughs behind it, disclosed, with an air of triumph, a tiny crucifix about 3 ins. high, completely hidden when the boughs were in place. The fact was that this was a ceremony dedicated solely to the old gods, but he was taking no chance of offending the *santos* of the Christians by completely excluding the sacred symbol. So must a devotee of the gods of ancient Rome have felt, when half converted to the new faith which had come out of Nazareth.

I give here in full the prayer of dedication to both the old gods and the Christian *santos*. It is very similar at both ceremonies, except that Cobà omitted the name of the *santos*.

"Ea, in cichpan colel kanleoox, yètel bacan tech in cichkelem tat yum San Isidro ah kolkal, yetel bacantech yum kankin, culucbalech ti likin, yetel bacan in Chauttupchaac, culucbal chumuc caan, ti likin, yetel bacan, Yum Canchaacoob, kin cubic yetel bacan ahsoil atepalo chumuc caan, yetel bacan tech in cichkelem tata Ahcaanan kakabool, yetel bacan tech in cichkelem tata Cakaal Uxmaal, yetel bacan tech in cichpan colel Santa Clara, yetel bacan tech in cichkelem tata yum Xualakinik, yetel bacan tech in cichpan colel Xkelik, yetel bacan tech in cichkelem tata yum Santo Lorenzo, yetel bacan tech in cichpan colel Guadelupe, yetel bacan tech tun yum Mosoni Koob, meyahnaheex ichil cool kat tocah, cin cubic bacan letie Santo Gracia, utial a nahmateex, yetel bacan tech U Nohchi Santo nai yokol cab halibe in yumen sates ten in cipil. Minan a tzul pach keech letie Santo Pishan, Toki in mentic letie Santo Promicia."

Translation

"Now my beautiful lady of the yellow breadnut, as well as you, my handsome father, San Isidro, tiller of the earth, as well as you, lord sun, who art seated at the east, as well as you, Chauttupchaac, who art seated in the middle of the heavens, in the east, as well as you, Yum Canchaacoob. I deliver to you, with the majestic servants in the middle of the heavens. As well as you, my handsome father, Ahcaanan Kakabool, as well as you, my handsome father, Cakaal Uxmaal, as well as you my beautiful lady, Santa Clara, as well as you, my handsome father, Xualakinik; as well as you, my beautiful lady Xkelik; as well as you, my handsome father, San Lorenzo; as well as you, my beautiful lady of Guadelupe; as well as you, Lord Mosoni Koob, that blows within the *milpa* when it is burnt. I deliver then to you this Holy Grace that you may taste it, and because you are the greatest *santos* on earth. That is all, my Master. Pardon my sins; you have not to follow the holy souls, because I have made this holy offering."

At San Antonio, near the mouth of the Rio Hondo, I had discovered some years ago several pieces of the beautiful painted Maya pottery, depicting birds, animals, human beings, hieroglyphics, and mythological creatures, together with several pieces of black polished ware, on which the ornamental devices were stamped in low relief while the clay was still soft. These were found for the most part in good-sized stone burial-chambers, or cysts, contained in large conical mounds. At this site, also, were other large mounds, at whose bases lay square chambers, each containing a single cinerary-urn, with

fragments of human bones within it. This site seems to have been the burial place of the well-to-do people of some adjacent city, which, as far as we know, may still lie awaiting discovery, buried in the depths of the little explored forests of Southern Quintana Roo. Recently, while excavating mounds at Sajomal, also near the mouth of the Rio Hondo, but south of San Antonio, and on the British side of the river, I discovered several more pieces of this pottery within very similar burial-chambers.

The site of Santa Rita, whose main temples and mounds are unquestionably of Toltec origin, lies a few miles south of Sajomal. I had done a great deal of excavation there, and discovered, amongst other things, a beautifully executed stucco painting on a temple wall. Near this I opened some small mounds in which were great numbers of curious, crude little funerary figurines, as many as one hundred of which, representing birds, reptiles, mammals, and fish, together with men and women going about their daily avocations—soldiers with shields and spears, priests in the act of self-mutilation, labourers carrying loads in their *macapals*, etc.—all of undoubted Toltec origin. I always looked upon Santa Rita as undoubtedly a site not occupied till late New Empire days, probably many years after the first Toltec invasion of Yucatan, for it must have taken no inconsiderable time for the Toltec hosts to have not only reached so far south in the peninsula, but to have established what, judging by the burial-mounds, temples, and house-mounds, must have been a thriving colony. I was, therefore, considerably astonished to learn that recently, when one of the great ridge-like elevations, so common at Santa Rita, was being excavated with a view to obtaining stone and powdered limestone (of which it was almost

exclusively composed) for road construction, a cache of genuine painted Maya pottery, such as I had discovered at San Antonio and Sajomal, and which we usually associate with the Old Empire, had been discovered.

On finishing with the ceremony of the native priest, I at once proceeded to the site of the discovery. I found it to be a large sickle-shaped ridge, flattened on top, and perhaps 10 ft. high. The vases had been found at a depth of 6 ft. from the surface, and were actually surrounded by the blocks of stone and limestone dust of which the ridge was built, not contained in a chamber, or protected in any way. With them were four very small fragments of human long bones, the other parts of the skeleton having, it would appear, completely disintegrated.

Of these pieces of pottery, four were shallow circular vessels, 13 ins. in diameter, very closely resembling a modern large dinner-plate in form. Two were decorated in red, yellow, and black, by a circular design filling nearly the whole of the inner surface of the plate. This represented the coiled feathered serpent, not, as is usual in Maya decorative art, so highly conventionalised as to be unrecognisable to any but a trained observer, but exhibiting the natural serpent's head very clearly, with speech symbols projecting from its mouth. The coils are decorated with the usual conventionalised feathers, and curious little round balls attached to spikes. The third plate, also decorated in red, yellow, and black on its inner surface, is divided into four segments, in each of which is shown a curious object composed of spirals, whose significance it is not easy to determine. The fourth plate was painted dead black throughout, and was undecorated; it corresponds almost exactly, in colour and

texture, to the black ware found at San Antonio. The fifth vase, some 6 ins. high, by 6½ ins. in diameter, was coloured red, yellow, and black. The interior was painted a uniform light yellow, and the exterior was decorated, on a background of the same colour, with representations of what appears to be a budding water-lily and a curious T-shaped object repeated alternately round its circumference.

Some excavation was done in the ridge, in the neighbourhood of the spot where these vessels had been found, but nothing further was brought to light. The discovery of these pieces of polychrome pottery at Santa Rita seems to indicate that a little island of Maya culture existed, reaching from that place to San Antonio, and perhaps ten miles in length from north to south, where this type was in use. It is found again some two hundred miles to the south, at Chumuchà, in the south of the Colony, as will be mentioned later, and it has also been found at Arenal, Caxauinic, and Holmul, near the western boundary between British Honduras and Guatemala. It is so entirely characteristic that it can be identified without fail, wherever found, and the discovery of its provenance, and the various sites at which it is found, should afford us valuable information as to Maya trade routes during the Old Empire.

Near the ridge containing the painted vessels was a small circular mound, some 25 yards in circumference, and 4 ft. high at the centre. It was built of rubble, limestone dust, and earth. In the centre, at a depth of about 2 ft., were found a number of fragments of human bones, in a very poor state of preservation. With them were the following objects: (1) Twelve small, roughly spherical clay beads. (2) Two small clay heads. (3) Fragments of arms and legs, in pottery, apparently from

the figures which decorated the outside of late-period incensarios. (4) A curious pear-shaped object, 2 ins. long, covered with a number of small round perforations, such as are not infrequently found held in the hands of these figures, and whose use is unknown. (5) The complete head of a human figure, which probably formed part of an incensario. It was 5 ins. long, and rather well modelled. In the ears were the usual round ear-plugs, and the headdress, most of which had been broken away, was decorated with round studs. The nose was decidedly Semitic in character. (6) Part of the head-dress, belonging to a human figure from an incensario, probably representing some mythological animal. (7) A number of extraordinarily hard, tough, brown seeds, which, as they lay near the other objects, may possibly have been interred at the same time. (8) A large broad-bladed flint spear-head. At one edge of this mound was found part of the wall of a house, built of nicely squared stones, decorated with a square cornice some 2 ft. from the ground-level. It rested on a cement floor. There can be but little doubt that this low mound was originally the platform upon which stood a small stone house, and that on the death of the owner he was buried beneath the floor, with some of his possessions, several incense-burners being broken in the ceremonies carried out at his funeral. Finally, the house was pulled down, and the material used to form a cap to the original house platform. I do not consider that this burial is contemporaneous with the painted pottery, as the appliqué work incensario decorations belong to the latest decadent style of Maya art, during the last degenerate days of the New Empire.

While in Corozal, I acquired a remarkably well-preserved specimen of a pottery head, of nearly life size and

very fine workmanship, which had been found by a chicklero, lying on top of a large pyramidal mound, near the head-waters of the Rio Hondo. All Maya burial-mounds, probably, originally had placed upon their summits, or at their bases, fragments of the incensarios which had been employed in the obsequies of the dead, just as the Kekchi, up to the present day, use similar censers for the same purpose, though, as the standard of honesty has probably deteriorated considerably since the coming of Europeans, these censers are no longer laid on the outside of the grave—now a mere heap of earth, replacing the everlasting memorials of their ancestors—but carefully buried beneath the corpse, which usually takes its last rest wrapped in the same sheet of mojo-bark which served it for bed and mattress during life. Unfortunately, the original finder of this head had exchanged it with a local barber for a shave and hair-cut, on his return from the bush in the usual hirsute and stubbly condition in which chicleros appear after their season's absence from civilisation. Still more unfortunately, this barber was a bit of an artist—save the mark !—and, to improve the head, which was that of a warrior, with the usual high, elaborate headdress, ear, nose, and lip ornaments, etc., worn by Maya caballeros at that period, he painted it a sky blue throughout, picking out the ornaments in various bright colours, as his fancy dictated. By ill luck he used oil-paints in this infamous work, and I had the greatest difficulty in getting it off—indeed, the inmost recesses of the appliqué head-dress and earplugs still show distinct traces of blue.

Large censers of this type are becoming rarer year by year, as the remotest corners of the bush are more carefully explored by chicleros and mahogany cutters, who have to go further and further in, in order to find the gum

and the wood for which they are in search, and the time must come, and that before very long, when the last Maya burial-mound will have been discovered, and the last incensario removed from its resting-place in the bush, to adorn some museum or private collection.

CHAPTER VII

The British Museum expedition starts for Chumuchà—Shooting iguana on the Mojo River—Getting carriers—Miserable life of the Machaca Indians—Smith misses a chance—We visit an isolated Indian hut—The women take fright and run off to the bush—An Indian millionaire buries his money and dies—Gruning's fan, a source of wonder to the Indians—Honesty of the Kekchi—The women insist on wearing upper garments in which to be photographed—A game fish in an unfished river—Bait used by the Indians—Unfortunate adventure with a pole-cat—Muddy and Andres' revenge on our cook—Armadillos' method of digging out palm-beetle grubs—Clive-Smith and the ancient parrot—Religious scruples overcome by the dollar—Comical result of a straight corn-cake diet on one of our Indians.

The British Museum sent out Captain Gruning and Mr. Clive-Smith to assist me in a second expedition to Chumuchà, the ruins in the extreme south-west of the Colony, as the presence of such a number of dated stelæ rendered it probable that the discovery would prove to be one of the most important made in the Maya area in recent years. We left Belize on March 2nd, in the motor-boat *Patricia*, kindly lent us by Sir John Borden, the Governor. The expedition consisted of Gruning, Clive-Smith, Muddy, Andres, Lizarraga, the photographer, and myself. We reached Punta Gorda, the jumping-off place for the ruins, on Saturday morning, without mishap, except that we ran aground for a short time on the bar of the Rio Grande, and I was enabled to contemplate again the mouth of that noble river, through which I had passed so many times during the last few years, on my way to and from the Lubaantun ruins.

Immediately on arrival, we set off to interview Father Tenk, S.J., who is a sort of combined fairy godmother,

Members of British Museum Expedition. Mr. Clive-Smith, H.E. Sir John Borden, K.B.E., C.M.G., Governor of British Honduras, Dr. Gann, in charge of the Expedition, and Captain Gruning.

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or perhaps one should rather say godfather, and universal provider to the stranger arriving in Punta Gorda, a little port which apparently went to sleep some years ago, when the United Fruit Company's steamers ceased calling there, and has never woke up since. From the Father we obtained a horse, a motor-launch, and a big dug-out canoe for our trip up the Mojo River, the first leg on our journey to the ruins.

We sent two horses and a mule on, overland, to meet us at Flour Camp, as I had no intention of repeating the twelve-mile walk through the mud from that place to Chumuchà, if it could possibly be avoided, and Gruning, who weighs well over two hundred pounds, was quite of my opinion in this.

On Sunday morning we started, but not till after Mass, as the Father insisted on the Carib engineer of his motor-boat hearing this service before setting out on his travels.

The launch towed our two large dug-outs up to the first fall, where we changed into the canoes and started our trip up the river. We had an immense outfit of camp luggage, cooking utensils, photographic and surveying apparatus, food, etc., but the bales of paper for taking moulds of the stelæ had been unfortunately forgotten when we left Belize, and we had to telegraph for them from Punta Gorda. The two dug-outs had eight paddlers between them ; five Caribs, who would return to Punta Gorda after taking us to Flour Camp, and three Nicaraguans, who were to accompany us to the ruins.

Gruning and Clive-Smith carried a perfect arsenal of weapons, consisting of pistols, guns, rifles, and assorted ammunition. In our course up the river we passed, as on the former trip, great numbers of iguanas, great lizards 5 to 6 ft. long. They lay about on the sandy bays and stretched along bamboo branches over the river, and let

us get quite close before scuttling off into the bush or dropping off into the river. Sometimes they would drop from the limb of a tree 40 ft. up, with a loud plop, into the water beneath. They did not appear to take any heed to the position in which they reached the water, and usually landed in what we used to term at school a " belly flop." Gruning got a lot of practice at them with a little ·22-bore rifle, but, owing probably to the motion of the dug-out, he did not, for a long time, succeed in making a bull's-eye. At last, however, his persistency was rewarded, as, on firing at a lizard sunning itself on the bank, a large white swelling suddenly appeared at the back part of the unfortunate beast's belly. " Eggs ! " at once shouted the Caribs, thinking the egg-sac of the reptile was protruding through the bullet-wound ; on examining our quarry, however, we found, not eggs, but small intestines protruding, the bullet having passed through the abdomen upwards, fracturing the spine, and so paralysing the animal and preventing it from escaping. Clive-Smith carried quite a novel weapon, of Austrian manufacture, consisting of a double-barrel shot-gun with a rifle barrel beneath. The barrels of the shot-gun were also rifled, and carried a bullet guaranteed to stop anything. The weapon, however, was so heavy that it required a hefty lad to shoulder it at all. One trembled to contemplate a long day in the bush with it. Smith only got one really good chance of using the immense bullets, and that was on the carcass of a twelve-foot alligator, sunning himself on the bank of the Mojo as we came up ; this, however, he refused to take, hoping to get more worthy game higher up and at the ruins, a decision he regretted daily during our trip, as he never got another chance at anything larger than a pole-cat.

We stopped for the night near the mouth of Black

Iguanas, full of Eggs. Our Diet up the Mojo River

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Creek, where I put up my little tent, about one hundred yards from camp and the inevitable chorus of Carib snores. Next day we made Flour Camp, and a little later the horses arrived, after a pretty bad journey, as most of the track had grown up in bush and was covered with fallen trees, around which the men had to cut passes before they could get through.

Later in the day, Muddy set out for the Indian village of Machaca, a few scattered settlements along the right bank of the Mojo River, in order to hire Indian carriers to convey our outfit from Flour Camp to the ruins. He was fortunate enough to obtain seven, as at this time of the year it is very difficult to get either Maya or Kekchi to work, because they are felling the bush to make their *milpas*, or corn plantations.

Next morning they all turned up, a quaint and picturesque party, clothed in cotton rags. The method by which the trousers of most of them were kept on was a constant source of wonder to us. These garments were masses of irregular variegated patches, lightly tacked together, through which no part of the original material was discernible, and so freely ventilated as to exhibit more underlying skin than cloth. They seemed to be entirely unsupported, to be always on the verge of making revelations—and yet they never actually did.

These Kekchi possessed faces of rather a Mongolian type. Their heads were covered with long, coarse, black mops, but only a few straggling hairs grew on their faces. They were stockily built, but evidently anæmic, which is not to be wondered at when one remembers that there exists something like a 100 per cent. hook-worm infection amongst most of their villages. They were good-tempered fellows, however, and their shining yellow faces were usually wreathed in smiles, while their laughter constantly

rang out whenever three or four of them came together for a " chin."

All the carriers were loaded up, each man carrying nearly one hundred pounds in his *macapal*, slung over his back, and set out for Madre Vieja, a place about three miles from the camp at Joventud, whence we could easily fetch the loads later. The three animals were also loaded, and sent on to the same destination. After dispatching our first load of luggage, we determined to visit some of the Indians in their own houses, and for that purpose chose the house of one José, chiefly because it was within half an hour's walk of Flour Camp. We discovered, on arriving, the crudest hut I think it has ever been my lot to behold. It was simply a roof of palm-leaf covering a patch of bare ground, without any pretence whatever at walls. The furniture was quite in keeping with the primitive nature of the hut, and consisted of a small henequen hammock, very much the worse for wear, and a roll of the bark of the mojo-tree, supported on a platform of sticks. A few crude, thick, home-made earthenware pots and small calabashes were scattered around, a hand rubbing-stone, for grinding corn, and a little shelf of sticks, blackened with wood-smoke, suspended by liana fibres over the fire, to keep food from ants and rats—and that was all ! I must not omit the fireplace, which consisted of three stones placed in the form of a triangle. A few strings of beans and plantains, some cuhoon-nuts for oil, and a live lizard, hung up by the tail, were the only articles of food in sight. An aged crone was cooking in an earthen pot over the fire, a younger woman and two babies looking on. We asked them to come out and have their photographs taken, but they did not understand a word of any language except Kekchi, and to all our blandishments returned

a sullen "Ma," "No," followed by a single, quite unprintable English word. These women were short, and very ugly, the elder lady's seamed, wrinkled brown face, sullen and frowning, being particularly repulsive. They each wore a single short petticoat-like garment. The children's clothes consisted solely of a string of beads.

Gruning's great size and immense riding-boots, with the array of little evil-looking black boxes containing Kodaks, moving picture, and other cameras, put them off, I think, and at last, from being merely sullen, they became really scared, and made off briskly for the river, presumably headed for the plantation where their lord and master was working. They must have been really frightened, as they left behind all their possessions, even to a long string of small Guatemala silver coins and glass beads, a possession, to a Kekchi lady, of almost priceless value. After waiting some time, as no one turned up, we made our way back to camp, indeed, from what I knew of José, who had worked for me on my first trip to Chumuchà, he was not likely to take any chances by interviewing aggressive strangers.

Next to this miserable little shack was one of the finest Indian houses I have ever seen. It was 65 ft. long by 25 ft. broad, and we found out, later, that it had been built by José's father, who was a sort of chief amongst the Machaca Indians. It was intended as a species of communal house for the whole Kekchi village, now scattered in small settlements of one or two houses along the river-bank. He was said to have amassed several thousand dollars, in gold and silver coins, but died so suddenly that he had no opportunity of telling José, his only—and extremely degenerate—son, where it was hidden. The family are now as completely destitute

as it is possible for an Indian family—who can always manage to wangle a living of some sort out of the bush—to be. We saw the old man's grave, just behind José's hut, and noticed that it was covered by a bush-house very much superior, as a residence, to that occupied by José and his family.

Gruning had brought, as part of his outfit, a two-foot aluminium fan, run by a kerosene lamp. This gadget, when in operation, was a source of never-ending wonder to the Indians, though we were never able to explain to them satisfactorily its use, as, unlike Gruning, they were completely unaffected by the heat.

The honesty of these poor Kekchi Indians is remarkable. At the old mahogany bank where we were camped, the owner had left, the previous year, a supply of rice, flour, salt beef, kerosene oil, etc., all articles highly prized by the Indians, yet, although there was not even a lock on the commissary door, the place was entirely unguarded, and the Indians passed through the camp almost daily, going up and down the river, not a single article—not a pint of flour or a pound of beef—had been touched.

Next day, having dispatched our Indian carriers with another load, we paid a second visit to José's house, this time accompanied, however, by a guide and interpreter, who rejoiced in the name of Pop—curiously enough, the name of the first month of the ancient Maya year. On this occasion José himself was at home, and our reception was much warmer. The women only grinned when chaffed about their flight from us on the previous day, and agreed to be photographed, both catching fish from their dug-out in the river and as a family group. They insisted, however, on putting on a sort of loose jacket, a garment which they hardly ever wear, not impelled thereto, apparently, by modesty, as they did not think of it

till the photograph was suggested, but by vanity. We noticed clusters of yellow and red fruit, very like grapes, hanging up in the hut, and found that this was the bait which they use for catching *machaca*, a fish which abounds in all the rivers and streams of the district, and after which the tribe is named. These berries are the fruit of a liana, and are called *pixbicabam*. The *machaca* rise to them greedily, as we ourselves found later.

The fish grow to three or four pounds, and are not unpalatable, though they are furnished with a sort of armour of floating and unattached bones, which renders it necessary to be very careful in eating them. They are a fairly game fish, and, as the Pusilhà and Joventud Rivers, in the neighbourhood of the ruins, are swarming with them, and have never been fished, they should provide an anglers' paradise.

On our last night at Flour Camp I was awakened in the early hours of the morning by a curious snuffling noise in my tent, and, looking out from beneath the mosquito curtain, saw, indistinctly, in the dim light of early dawn, a smallish animal of some sort sniffing about the floor. I always keep an unsheathed machete stuck in the ground, by the side of the cot, as being the most handy weapon with which to deal with any intruder which may get into the tent, and, seizing this, I dealt the beast a shrewd whack over the side of the head with the cutting edge of the machete, which was razor sharp. He bolted out beneath the tent-flap, but collapsed, and died just outside. Yet, in his death, he was more than amply avenged, for such a pestilential stink began to disseminate itself on the fresh and fragrant air of early dawn as to drive me from the tent as from a spot accursed. It was terrific ; it could be tasted as well as smelt, and was almost palpable. I had killed a pole-cat !

At early coffee Gruning and Clive-Smith, on sniffing the morning air, agreed that there must be something very dead in the near neighbourhood of camp. There was—yet it was no less than three hundred yards from where we sat!

We made an early start for Joventud Camp that morning, Gruning riding the mule and Clive-Smith and I the horses. The road was not nearly so bad as on my first trip, and we made good time. Garbutt, the lad whom we had hired as cook, walked with Muddy and Andres. He had never been popular, as he was a far better trencherman than cook, and Muddy and Andres had a good deal of what should have been his work to do. On this occasion, apparently out for revenge, they gave him an innocent-looking basket to carry, but so weighted down with heavy canned goods as to make a fair load for anyone but an Indian. In addition to this, he had a small *pataqui* containing his own clothes slung over his back. He stuck it out for about half the distance, then commenced slithering about, and falling every few yards, so, seeing he was all in, we called a halt, with the intention of getting some of his load off on to Muddy and Andres. They, however, foreseeing just such an eventuality, had prudently put on a spurt, and got well out of hailing distance, so, there being no alternative, Gruning, Clive-Smith, and myself had to take turns carrying the cumbersome load in front of our saddles all the way in. It could not be fixed anywhere, and to guide one's mount with one hand, and hold the basket on with the other, was no easy undertaking, especially when crossing the slippery and half rotten corduroy roads at the bottom of the innumerable small creeks we had to cross.

We passed on the way quite a number of fallen cuhoon-palms, the soft central portion of which had been dug out,

evidently by some animal, and lay in a great heap, for all the world like oakum, at the butt-end of the tree. We thought at first that these excavations had been made by some beast, as a burrow, and poked a stick right up to the end of quite a number of them, always, however, without effect. We discovered later that the excavator was an armadillo, who made short work of this soft woody material with his powerful claws. He was searching for the large, white, luscious grub of the palm-beetle, which abounded in the interior of these fallen cuhoons, and we wished him good hunting, for these pests do more harm to coco-nut plantations than all the other numerous diseases from which this tree suffers put together.

We spent the night at Joventud Camp, and set off early next morning for the ruins.

We crossed the Pusilhà, near its junction with the Mojo, on a really wonderful bush bridge, constructed by the Government for our special benefit. It consisted of an immense Santa Maria tree, which had been felled so that the trunk had fallen, exactly at right-angles, clean across the river. The round trunk had been squared off, and even a rail of liana added, as an extra precaution. Curiously enough, as if not to be outdone by man, Nature had, almost at the same time, and within a few yards of the new bridge, constructed one of her own, by allowing a dead trunk to fall and bridge the stream.

On arrival at the ruins, we at once set about pitching the tents, and constructing three stout leaf-and-stick houses, one for Gruning and Clive-Smith, one for Muddy, Lizarraga and Andres, and one as a kitchen and store. The locality has an extremely bad reputation for rain, and, until this was done, we never felt sure of keeping either ourselves or our stores dry. The rain god Tlaloc had, I fear, misunderstood the object with which we each

offered a silver dime to him, thrown into the water near Black Creek, on our way up, for he has sent us rain, a much more miraculous performance, one would imagine, than sending fine weather, which is naturally to be expected in the middle of the dry season, now supposed to prevail; however, I suppose from a rain god one could only expect rain.

Parrots roosted in considerable numbers in the great forest trees surrounding the plaza where our camp was located. They were as good as a clock, for precisely at daybreak every morning their terrific din awoke us to early coffee. They were of the large green variety, known to the natives as *wacho*, and, when young, are very good eating, hardly to be distinguished from pigeon. Clive-Smith, on hearing this, shot one, and tried it, stewed for six hours with rice. He came to the conclusion, either that native delicacies were overrated or that a special palate was required for their proper appreciation. But then he had shot an old bird—a bird so old, as I told him, that it might have been present at the erection of the last of the stelæ by the ancient inhabitants.

After this, the birds did not return to roost in the trees around the plaza again, and we rather missed our alarm-clock. The dead bird's mate, however, returned every morning and evening till we left the ruins, and called its lost companion, for five or ten minutes, with notes which sounded partly anxious, partly querulous, till it rather got on our nerves.

On the arrival of Sunday, our Nicaraguans refused to work, as they said it was contrary to their religious scruples. We were rather astonished, but at once acquiesced, as to interfere with a native's religious scruples was the last thing we wished to do. Half an hour later, however, after loafing about the plaza watching the

Taking Photographs from Platform of Sticks

Chumuchà. General View of Work on the Plaza

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other men attending to their jobs, they came back and announced that their scruples could be overcome by the payment of one dollar per day extra for Sunday work.

After a week's work, three of our best Indians, a father and two grown-up sons, announced their intention of leaving us for ten days. On enquiry, it turned out that they had determined to cut another *mansana* of bush, for corn plantation. We pointed out to them that at the rate of wages they were then earning, exclusive of the premium for anything of exceptional value which they might find, the three of them would earn in ten days more than double the amount which they could reasonably expect to get for the corn produced by one *mansana* of *milpa*. Then they explained to us a custom amongst the Kekchi, of which I had never heard before, accounting for the anxiety always displayed by these Indians over their *milpas*, causing them to leave the best paid work to go and fell bush, at the proper time, for the plantation. It appears that amongst themselves the Indians will not sell corn to a family with a man in it, only to widows or orphans, or those who are incapable of making *milpas* of their own. Each man is helped by his neighbours to make his *milpa*—and, in turn, assists them to make theirs—but a *milpa* he must make, or go cornless, which to the Kekchi, whose staple article of diet is maize, is equivalent to starvation. This state of things undoubtedly tends to keep up the old communal spirit amongst the Indians, to segregate them from their neighbours, and to perpetuate the ancient religious ceremonies amongst them, as these are nearly all connected with various procedures in the *milpa*—felling the bush, planting the corn, harvesting, etc.—and are performed primarily with the object of propitiating the gods of rain, fertility, and the winds.

On several occasions the men brought in bush honey,

the product of the wild bees, which they had found in hollow logs. The wax is almost black, but the honey itself has a rather pleasant aromatic taste. The whole comb looks like the dripping from an immense black wax candle. The bees which make this honey are tiny little yellow chaps, about the size of a house-fly. They almost cover one's hands and face sometimes, especially if one is perspiring freely, as the salt seems to attract them, for an open salt-cellar is soon covered with a struggling heap of them. Fortunately they are entirely stingless. Curiously enough, though bees are, in England, one of the few insects which possess stings, in British Honduras they are one of the few who do not. The batlas-flies troubled us a good deal at times, especially in a dead calm. These miserable little, short, squat, black flies come in clouds, and settle without much noise or fuss on all exposed parts. Their bite itches a good deal, and to some people causes a great deal of irritation and swelling. Every bite leaves behind a tiny round red spot, about the size of a very small pin-head. This shortly turns black, and when I left the ruins my hands and nose were peppered liberally over with these black spots.

We found the ants amongst the most troublesome pests at the camp. On one occasion I found my suit-case had been taken possession of by a thriving colony of large brown wood-ants, evidently for the purpose of making a nest, as it was already plentifully supplied with eggs. How they got in was a mystery, but they were soon ejected. On another occasion, we woke in the morning to find an interminable procession of ants making off into the bush, each carrying a fragment of biscuit or rice; they had actually climbed the swinging shelf on which these articles were stored for safety, and, each carrying off a tiny morsel, would soon have left

us without a grain of rice or a biscuit, had they not been discovered in time, and routed with torches made of dry palm-leaves. I could not help thinking that if only we humans would attend to our business with the tenacity and singleness of purpose of an ant, what an immense amount of work we should be able to accomplish. One could actually lift the ant up by the fragment of rice or biscuit which it carried, and, instead of letting go, it simply kicked its legs in the air, waited till it was put down, regained its foothold, and calmly went on with its job, without even stopping to consider what had happened to it.

It was a constant source of wonder to us how our Indians managed to work, on their meagre diet. They brought with them, from their villages, nothing but dry, leathery tortillas, or corn-cake, and chilli pepper, and on this wretched diet subsisted and worked for ten hours daily, though it must be admitted their work was not of a very strenuous order, and it was impossible to hurry them. The tortillas were toasted in front of our fire every morning and evening, and, flavoured with red pepper, and washed down with water, formed their sole sustenance. A couple of tins of bully beef acted on them like fresh oil to an internal combustion engine, and bucked them up in the most astonishing manner for the rest of the day. Notwithstanding their poor diet, they were a merry crowd, and at meal-times always found something to laugh at, usually a practical joke —and the more practical the better—or some comical misfortune to one of themselves.

One little stunt, which simply brought the house down, and caused roars of laughter for fully half an hour, was supplied by a small fat Indian who arrived to join the gang from a neighbouring village. He was one of the

ugliest Indians I had ever seen, yet there was something so comical about his face that merely to glance at it made one smile—indeed, I feel sure it would have made his fortune in the moving pictures. This lad was, like most of them, though not well filled out elsewhere, a good deal distended as to the abdomen, partly from the presence of a considerably enlarged spleen, and partly from intestinal gas, the inevitable result of a straight tortillas diet, no matter how much red pepper he ate as an antispasmodic. He had never been used to wielding a pick and shovel, or, in fact, to any kind of labour where intermittent stooping was necessary, with the result that, as soon as he stooped to work, he literally went off in a series of explosions. Immediately he stopped all was well, but promptly on his starting again the bombardment recommenced.

It will now be necessary to give a detailed description of the principal structures discovered, and the work done at the site.

CHAPTER VIII

The plaza, its construction and boundaries—A modern "River of Youth"—A romantic lagoon—The substructures surrounding the plaza—Damage done by forest trees to the ruins—Substructure I—Discovery within it of fragment of re-used stela—Substructure II, its terracing and stairway—Substructure III, and its stela—Substructures IV, V, and VI—Masonry used in the construction of the substructures—The stelæ; why they are all fallen and all broken—Their arrangement in the plaza, in which they are all contained—Earliest and latest dates recorded on the stelæ—Probable length of time during which the city was occupied—Stone used in the construction of the stelæ.

The main plaza is a rectangular enclosure, whose long diameter runs about 30 degrees east of north. It occupied the summit of a small natural hill which slopes gently down in every direction. It is probable that the top of this hill had been artificially flattened in order to supply a suitable surface for its construction. Its exact measurements are not easy to arrive at, owing to the fact that a great quantity of earth and stones has fallen from the substructures which surround it, obliterating to a great extent their original outlines.

When first discovered, it was covered throughout with a fairly dense growth of small palm-trees, for the most part cuhoon and coroza, amongst which stood a number of large forest trees. These had to be felled in order to admit of work on the substructures and stelæ. When cleared, the floor was found to be almost perfectly level, and to be composed of three layers.

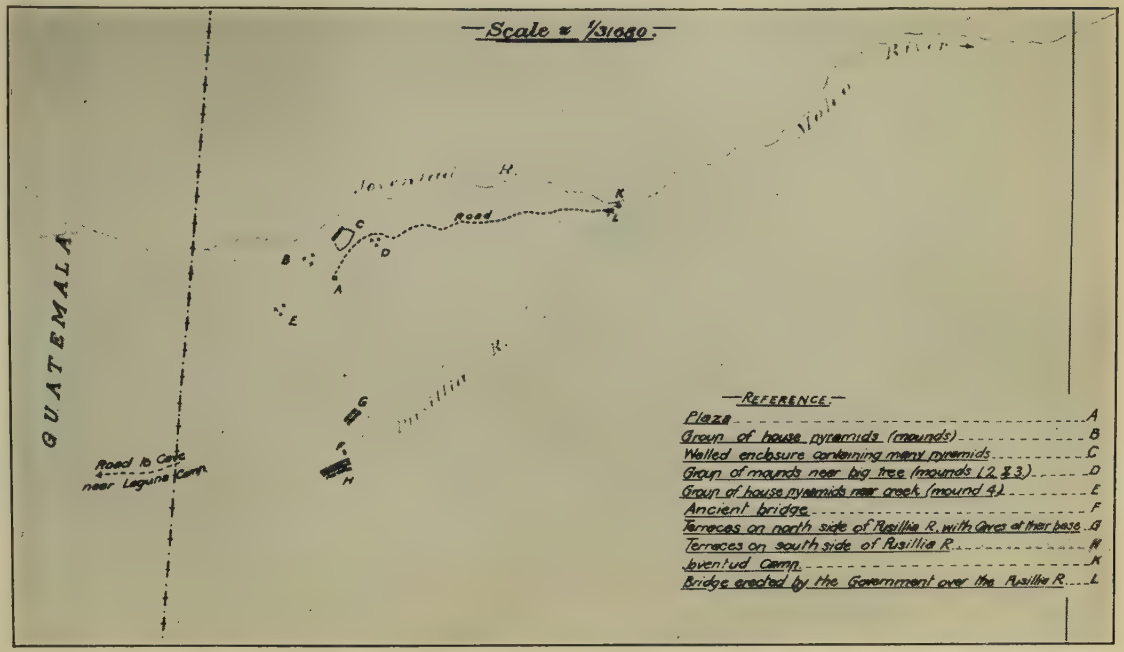
1. A layer of dark vegetal humus, varying a good deal in depth in different parts of the plaza, but averaging perhaps 6 ins. This had evidently been formed by decaying

vegetation, accumulated since the city was deserted by its Old Empire inhabitants.

2. A layer from 6 to 12 ins. deep, composed of small fragments of limestone, lying immediately in contact with the last, which had evidently formed the original floor of the plaza. Between and around the stelæ, this layer had been greatly deepened, and reinforced with large blocks of limestone, evidently with the object of affording a solid foundation for the support of the monuments.

3. A tough, sticky, greyish clay, streaked with red and yellow, which formed the natural floor. The hill upon which the plaza was situated lay between the Joventud and Pusilhà Rivers, 300 to 400 yds. from the former, about half a mile from the nearest point of the latter, and a little over a mile from their junction to form the Mojo River.

The site was admirably chosen; excellent natural drainage was ensured, a good water-supply was close at hand, from the rivers, which were also teeming with fish. The Joventud, being the nearer, was probably the main source of their water-supply. Its romantic name, signifying "The River of Youth," reminds one of old Spanish legends, and especially of that fountain of eternal youth which the intrepid Ponce de Leon set out to discover in the Everglades of Florida. This stream may indeed be found to better justify its name in the future, for it is highly charged with mineral matter, and, willy nilly, if one drinks it, one takes, every morning, that "little dose" which is guaranteed to produce the "youthful feeling." On me it produced, I must admit, nothing more stimulating than a rather unpleasant chronic diarrhœa, till I got accustomed to it. When the bush was cleared, a splendid view must have been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GUATEMALA
Road to Cote
near Laguna Corth
Road
Reference
Plaza A
Group of house pyramids (mounds) B
Walled enclosure containing many pyramids C
Group of mounds near big tree (mounds 1, 2, 3) D
Group of house pyramids near creek (mound 4) E
Ancient bridge F
Terraces on north side of Rusillia R. with flights at their base G
Terraces on south side of Rusillia R. H
Ancient Camp K
Bridge erected by the Government over the Rusillia R. L

CHUMUCHÀ. PLAN OF THE SITE

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obtained of the cities of the terraces, the bridge connecting them, and the whole surrounding country.

The ancient Maya priests, indeed, like the monks of the Middle Ages, were adepts at choosing the best sites for their religious foundation, and, also like them, were no doubt equally adept at obtaining a living from their neighbours without much exertion on their own part.

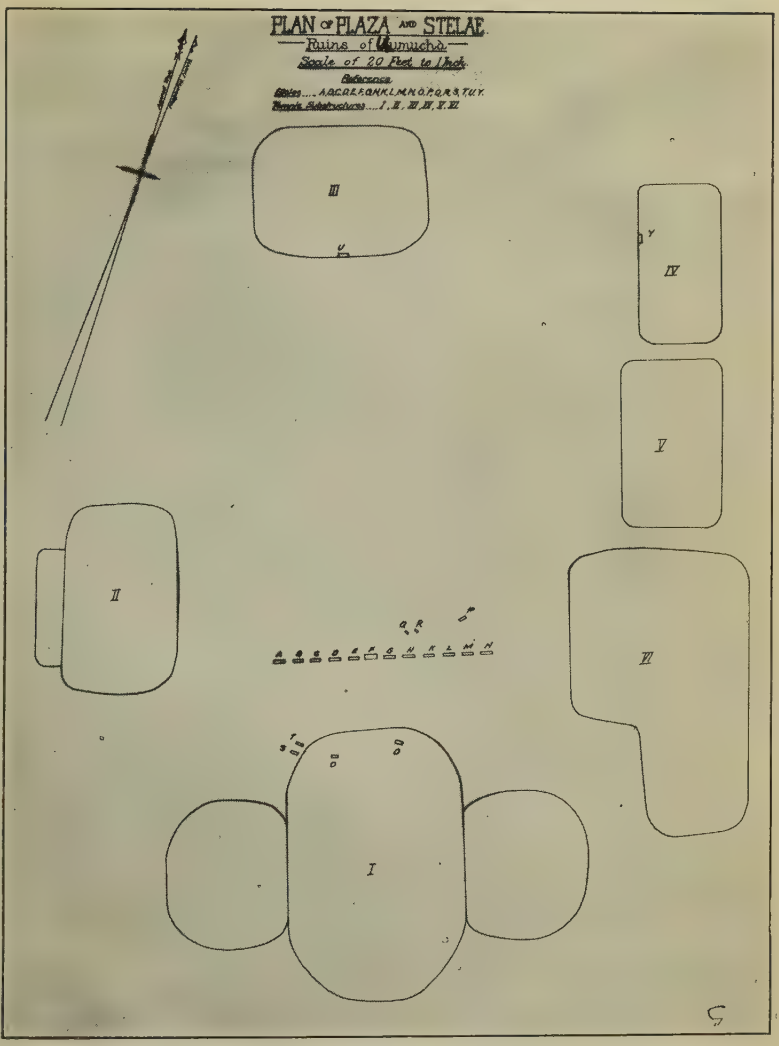
The Joventud River, close to the ruins, expands into a beautiful little palm and fern bordered lagoon, where we frequently took our afternoon bathe, though one could not linger long on the bank in a state of nature, for the place swarmed with ravenous *tabanidæ* and doctor-flies, which must have found our tender, unprotected, hairless bodies a delightful change from the tough, hairy hides of the ordinary bush denizens, on which they usually fed. The lagoon was a most romantic spot, of a deep bluish-green colour, and fed by a waterfall cascading over a limestone ridge at its upper end. I often wondered whether, like the great *cenote* at Chichen-Itza, it had ever been used as a receptacle for offerings, human and otherwise, to the Maya god of rain, and some future expedition might find it worth while to carry out a little tentative dredging in the very deep central part.

The plaza is enclosed, on all four sides, by six extensive flat-topped pyramids, which had undoubtedly served as substructures for the support of wooden temples, which, centuries ago, must have become incorporated with the carpet of vegetal humus which covers the entire site, leaving no trace whatever behind. One is placed on the south-east, one on the south-west, one on the north-west, and three on the north-east side. All are now mere heaps of stone and earth, in the form of low, truncated pyramids, but here and there are

visible traces of terracing along their sides, and of stairways leading to their summit, which seem to indicate that all of them were originally terraced throughout, the terraces being built of roughly cut slabs of stone, merely fitted together, without the intervention of any mortar. At Lubaantun, where a number of the same type of terraced pyramids are found, and where the stones are beautifully chipped and accurately fitted together, the bush has completely destroyed a great part of the work of the ancient architects, and not one single complete pyramid exists. Here, at Chumuchà, where the masonry is much cruder, and the stones roughly squared, and not fitted together with any great care, the ruin has, naturally, been much greater, as the roots of large forest trees, finding their way into the interstices between the stones, have, in the course of the ages, left hardly a single piece of the original masonry *in situ*. Even the outlines of the original bases of the pyramids have become blurred, and it is doubtful whether it will ever be possible to reconstruct them properly. The present plan, consequently, does not pretend to delineate the pyramids as they originally appeared, but as they are now.

The plaza is approached by four passages between the pyramids, one at each of its four corners.

Substructure I occupies the whole of the south-east side of the plaza, and was probably the most important structure in the entire group, as immediately in front of it stood the row of stelæ, lettered A to N, presently to be described. It is by far the highest of all the substructures surrounding the plaza, and measures 135 ft. in breadth, 93 ft. from front to back, and 13 ft. in height. It consists actually of three pyramids, connected together : a large central one, 13 ft. high, with a smaller one on each side, measuring respectively 8½ and 8 ft. in height. On the


PLAN OF PLAZA AND STELAE
Ruins of Chumuchà
Scale of 20 Feet to 1 Inch
Reference
Stelæ.... A A C D E F G H K L M N O P Q R S T U V
Temple Substructures.... I, II, III, IV, V, VI
III
IV
V
II
VI
I

CHUMUCHÀ. PLAN OF THE PLAZA

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side facing the stelæ traces of a stairway, projecting from the pyramid, are still to be made out, which apparently led from the plaza to the summit of the mound upon which, doubtless, stood the principal temple of the group.

Very little excavation was done into this pyramid, as the time and labour at our disposal did not admit of such work, but such as was done brought to light nothing except great masses of limestone and conglomerate, with a certain proportion of earth, amongst which were found a few flat, squared stones, all that remained of the terraced facing which at one time had probably covered the whole mound. One important and interesting discovery was, however, made. In making a small excavation on one side of the large central mound, a small fragment of a stela, still bearing upon it a few very much worn hieroglyphics, was brought to light, proving conclusively that here, as at so many Old Empire sites, old stelæ had been broken up and re-used, either as new stelæ, lintels, or, as in this case, merely filling material for new structures. No trace whatever of interior chambers, or the Maya arch, was found in excavating this structure, but a thorough and systematic excavation, right through it, will be necessary before the absence of these can be definitely asserted. This is, as already stated, the highest of all the structures, and probably the most important; here, therefore, if anywhere at the ruins, should internal rooms be found.

Substructure II occupied the entire south-west side of the plaza, and is 65 ft. long, 37 ft. broad, and 7 ft. high. Towards its southern end, and facing the plaza, traces of three low perpendicular walls, very crudely built of roughly shaped, flat flags of stone, are still visible. No mortar was used in the construction of these walls. They divide this particular part of the substructure into two

narrow terraces, and doubtless these two terraces, with their three bounding walls, originally continued around the whole circumference of the substructure. Against the side of the pyramid facing away from the plaza, traces of a stairway are still to be made out, in the form of an inclined plane leading from the ground level to the summit of the mound. The flat summit of this substructure is larger than any of the others surrounding the plaza, and must have supported a wooden building of considerable size. It slopes decidedly, in a direction away from the plaza.

No excavation was attempted in this pyramid.

Substructure III occupies the entire north-western side of the plaza. It measures 58 ft. in length, 44 ft. in breadth, and 6½ ft. in height. No traces of terracing are visible on this structure, which is a mere mass of stones and earth.

In the centre of that side of its flat summit which faces the plaza was found stela U, presently to be described.

An excavation was made through the side of this mound, to the ground-level, extending from the centre of the mound to the stela at its edge. Nothing whatever was discovered, except a mass of uncut stone, mixed with soil, amongst which were a few fragments of common domestic pottery and some broken obsidian knives.

Substructure IV, with substructures V and VI, forms the north-eastern boundary of the plaza. It measures 54 ft. in length, 29 ft. in breadth, and 4 ft. in height. Only two days before we had to leave the ruins we found, 18ft. from the end of the side facing the plaza, six fragments of stela Y, which had been partially buried. The base of the stela could not be located, though it seems probable that it must still be in existence somewhere in the vicinity. Excavation made, with a view to finding it, however,

revealed the fact that the side of the substructure facing the plaza was bounded by a perpendicular wall, 3 ft. in height, now completely buried beneath humus and stones.

Substructure V, situated between substructures IV and VI, formed, with them, part of the north-eastern boundary of the plaza. It was 54 ft. long, 36 ft. broad, and 4 ft. high. On the side facing the plaza, traces of a stairway are still visible.

Substructure VI completed, with substructures IV and V, the north-eastern boundary of the plaza. It was 96 ft. in length, 58 ft. in breadth at its broadest point, and 10 ft. in height. It actually consists of two structures connected together, the southern structure being narrower and lower than the northern.

Remains of walls dividing the front—i.e., the side facing the plaza—into small terraces are still visible. These, like all the masonry found in structures enclosing the plaza, are crude. Flat flags of stone were roughly squared, and built into walls. No mortar was employed, and no joints were formed, the apposition is, in most cases, not very close, either between the courses or the individual stones.

The Stelæ

Fragments of twenty stelæ, in all, were discovered at the ruins, not including the small piece already referred to, re-used as filler in erecting substructure I.

On the southern terraces, to the south of the Pusilhà River, was found an upright stone, which from its shape and position had probably formed part of a stela, but, as all traces of sculpture had vanished from it, this is also excluded from the list.

All these stelæ were found either within the plaza itself or upon the substructures which surrounded it.

Not a single one of them was in its original position, and not a single one was intact; all had fallen, and all were more or less weathered, or broken, or both.

Their fall was probably due in part to the fact that their foundations were very flimsy and shallow. At Quirigua, Naranjo, Tikal, Uaxactun and other Old Empire cities, where the majority of the stelæ are still standing, the foundations are deep, and solidly constructed of great masses of stone, firmly rammed in for a considerable distance all round the base of the stela. At Copan many of the monoliths stand upon great circular discs of stone, which, in turn, are supported by strongly built cruciform vaults.

At Chumuchà, neither of these expedients has been resorted to. Comparatively shallow holes have been dug in the clay soil, and into these the bases of the stelæ have been inserted, and loosely tamped down with a comparatively light filling of stones. The consequence of this must have been that each of the stelæ was knocked flat by the fall upon it of the first large tree, which probably took place within a couple of centuries or so of the desertion of the city. But, unfortunately, much more serious and irreparable damage than merely knocking down was done the stelæ by the fall of trees, as all of them have been broken, some into such a number of small pieces that it will probably be impossible to reassemble them again, while in other cases great fragments have been separated from the parent monolith, by many yards, apparently solely by the action of growing roots, through a period of some fifteen centuries.

The twenty stelæ within the plaza are arranged in the following order. In a straight line directly in front of substructure I, where they probably faced the principal

temple, are the twelve stelæ marked A, B, C, D, E, F, G, H, K, L, M, and N on the plan.

About midway up the side of substructure I, one half being on one side of the structure and one on the other, were found the two halves of stela O.

Behind the main line of stelæ were found parts of stelæ P, Q, and R, whose original position it was found impossible to determine accurately.

Stela U stood upon the summit of substructure III immediately facing the main line of stelæ, and stela V stood upon the front of substructure IV, facing the plaza.

The earliest date recorded on any of the stelæ, and the earliest found at the site, was that upon stela O, 9.7.0.0.0., that is 9 Bactuns of 400 years each, 7 Katuns of 20 years each, 0 Tuns, or years—the Tun consisted of 360 days—0 Uinals, or months, and 0 Kins, or days, after the opening date of Maya chronology, a certain date 13.0.0.0.0, 4 Ahau, 8 Cumhu, which fell on the day October 14th, 3373 B.C. of our era. It will be found that, deducting 9 Bactuns, and 3 Katuns, from October 14th, 3373 B.C., we arrive at the date February 8th, A.D. 314, which is, consequently, the date recorded upon this stela.

The latest date recorded upon any of the stelæ, and the latest date found at the ruins, is 9.15.0.0.0, 4 Ahau, 13 Yax—that is, 9 Bactuns and 15 Katuns after the opening date of Maya chronology falling on the Calendar Round date 4 Ahau, 13 Yax, which brings us, according to Spinden's correlation, to the day October 22nd, A.D. 471 of our era. It will be seen, then, that the earliest date recorded is in the year A.D. 314, the latest in the year A.D. 471, which would make the period of occupancy of the city some 157 years. As a matter of fact, however, it was

probably occupied for a much longer period than this, as one would not expect the inhabitants to have put up these time-markers, recording the events which had occurred during the previous Katun, or twenty-year period, till they had been settled for some time at the site, and had at least had time to acquire an historical record of twenty years, and probably much more. Nor would one have expected the whole population to have left the site, *en masse*, shortly after the erection of stela M; indeed, from the evidence of the caves, already referred to, it would appear that the city was not entirely deserted up to late New Empire days. The stelæ differ greatly in material, style, and size.

Three different varieties of stone were used in their construction: (1) sandstone, (2) limestone, and (3) conglomerate. On the Pusilhà River side of the plaza great boulders of sandstone are exposed, in the bed of a creek which empties itself into the Pusilhà, and this would have provided the ancient inhabitants with an almost inexhaustible supply, close to the plaza, and requiring very little work in quarrying, which, with their primitive stone implements as the sole means of cutting stone, must have been to them a matter of very great importance.

On the bank of the Joventud River, less than quarter of a mile from the plaza, great blocks of conglomerate are to be found, outcropping, which merely require cutting into the desired shape to make satisfactory stelæ. It is possible that the hard limestone stelæ, which have best withstood the action of weather and the passage of time, were derived from the southern terraces, and that one use of the bridge was to facilitate the transportation of great blocks of such stone across the river.

On nine of the stelæ dates can be read. They are as follows:

Stela	D	9.8.0.0.0 9.10.15.0.0
„	E	9.15.0.0.0
„	F	9.9.13.0.0
„	H	9.11.0.0.0 9.7.12.6.7
„	K	9.12.0.0.0
„	M	9.14.0.0.0
„	O	9.7.0.0.0
„	Q	9.8.0.0.0
„	Y	9.7.0.0.0 9.10.15.0.0

It will be noticed that, of the twelve dates recorded, eleven are Initial Series, and but a single one, that on stela F, a Calendar Round date; moreover, this last is somewhat doubtful.

Eight of the twelve dates record Katun—or twenty-year period—endings. Two, on stela D and stela Y, record Lahuntun endings. One, on stela F, records an Oxlahuntun ending, while in but a single instance, that on stela H, are odd months and days recorded.

Chronological sequence was not followed quite accurately in erecting the stelæ in the row in front of the main substructure, for the contemporaneous date of stela D, the earliest still in existence in this row, is 9.10.15.0.0. This is followed by stela E, with 9.15.0.0.0, a gap of nearly ninety years, and E is followed by H, with 9.11.0.0.0, returning to a date within five years of that recorded on stela D. The four stelæ, from H to

M, probably recorded four consecutive Katuns. Stela H records the end of Katun 11, stela K the end of Katun 12, and stela M the end of Katun 14. It is only reasonable to suppose that stela L, which has perished, recorded the end of Katun 13, and so completed the series.

STELA C

STELA C

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CHAPTER IX

Stela A—Stela B—Stela C, no hieroglyphic inscription, but the life-sized figure of a priest sculptured upon it—Stela D contains one of the longest hieroglyphic inscriptions throughout the Maya area—A mistake has probably been made by the ancient sculptor in recording the date—These mistakes, though rare, occur all over the Maya area—Date recorded is 9.10.15.0.0, 8 Ahau, 13 Mac—Altar in front of stela D—Stela E, broken into five pieces—Probable date recorded on this stela, 9.15.0.0.0, 4 Ahau, 13 Yax—This corresponds to October 22nd, A.D. 471—Eccentrically shaped flint and obsidian objects found beneath base of stela—Frog-shaped stone altar found behind it—Stela F—Records a Calendar Round date, not an Initial Series—The largest stela at the site—Possible date recorded, 3 Ahau, the end of Tun 13, or, as an Initial Series date, 9.9.13.0.0, 3 Ahau, 3 Cumhu—Great quantities of eccentrically shaped flint and obsidian objects found at the base of this stela—Stela G—Stela H—Records the date 9.11.0.0.0, 12 Ahau, 8 Ceh, corresponding to December 15th, A.D. 392—Frog-shaped altar found beside the stela.

Stela A was the westernmost stela in the line standing in front of substructure I. It was made of rather soft, friable conglomerate. It had been broken off at the base, probably by the fall of a tree, many centuries ago. The broken-off base had been completely covered by humus, and it was only after excavation on the site that the presence of this stela was discovered. A few small fragments of the stela were discovered on both sides of the base, but these were so much weathered that nothing could be made out of the sculpture on either face of them. There were no traces of hieroglyphics upon the buried base, which measured 34 ins. in length, by 38 ins. in breadth, and 7 ins. in thickness.

Stela B stood next to stela A in the front line: it had been broken off at the ground-level, apparently, at a very

remote period, as the top of the base, still remaining *in situ*, was completely covered with humus. On the top of this side of the base, facing substructure I, were the remains of a single row containing six hieroglyphics, evidently the bottom row of the inscription which once covered this face of the stela. They were so badly weathered as to be entirely indecipherable.

The base was made of greyish sandstone, such as is found in the bed of a creek within a quarter of a mile of the plaza. It measured 40 ins. in length, 36 ins. in breadth, and 8 ins. in thickness. Numerous small fragments, apparently belonging to this stela, were found in the neighbourhood, but upon none of them could any hieroglyphics be deciphered.

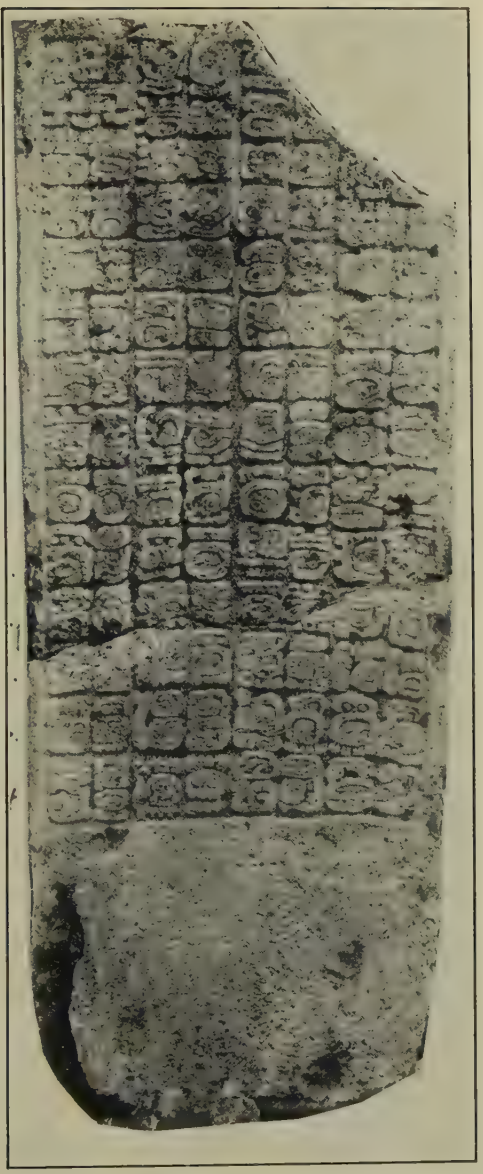
Stela C stood next to stela B in the line. It had been broken off just above the ground-level, probably at a very remote period, judging by the amount of weathering which the upper part of the base had undergone.

The portion of the stela buried in the ground measured 45 ins. in height, 42½ ins. in breadth, and 13 ins. in thickness. No sculpture of any kind was found upon it. The upper fragment of the stone lay a few feet to the north of the base from which it had been broken. It measured 66 ins. in length, but its upper part was missing to the extent of at least 12 ins. From base to apex the entire stela measured, originally, probably in the neighbourhood of 10 to 11 ft.

The upper fragment had, most unfortunately, fallen with the side containing the Initial Series inscription turned upwards, and, as the stone was made of a rather coarse conglomerate, which stood the weather badly, the hieroglyphic inscription had been completely obliterated.

On that side of the upper fragment of the stela turned to the earth was found sculptured, on lifting it, the

A B C D E F G H



1 2 3 4 5 6 7 8 9 10 11 12 13 14

STELA D

First Initial Series.

A1, B1, A2, B2. Introducing Glyph.

A3. 9 Bactuns.

B3. 8 Katuns.

A4. 0 Tuns.

B4. 0 Uinals.

A5. 0 Kins.

9.8.0.0.0.

Second Initial Series.

H3. Introducing Glyph.

G4. 9 Bactuns.

H4. 10 Katuns.

G5. 15 Tuns.

H5. 0 Uinals.

G6. 0 Kins.

H6. 8 Ahau.

G10. 13 Mac.

9.10.15.0.0.

8 Ahau 13 Mac, which is the contemporary date of the Stela.

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greater part of a life-sized human figure, in rather low relief, still in an excellent state of preservation, so good indeed that, had the other side been protected, it would almost certainly have been possible to read the date inscribed upon it.

The figure probably represents a priest, in elaborate contemporary costume. He wears an immense head-dress, part of which has been broken away, decorated with the head of the feathered serpent, jewels, plumes of feathers, and what appear to be leaves. In his ears are the great round tasselled earplugs so commonly worn by the upper classes amongst the Maya. Projecting from each side of the septum is the curious nose ornament so frequently seen, which must have been an extremely cumbersome, not to say painful, ornament for everyday use. Round the neck and shoulders is worn a collar, or small cloak, which appears to have been constructed entirely of jewels strung together in rows.

The wrists are adorned by elaborate wristlets, consisting of a row of long tubular beads, bordered above and below by a string of spherical beads. The arms are folded across the chest, against which they hold a very elaborate ceremonial bar, to each end of which is affixed a grotesque, long-nosed mask. A very curious and elaborate belt is worn around the waist, on the front of which is seen a grotesque human face representing an ancient man, with open mouth and staring eyes. On each side of this is depicted the same face, in profile, bringing out well the immense curved nose, and large fang curling backwards from the angle of the mouth. From this belt depends the *maxtli*, or loin-cloth, also very elaborately decorated.

Immediately behind the upper part of the left leg are seen two hieroglyphics, which not improbably record the name and office of the individual depicted. Doubtless

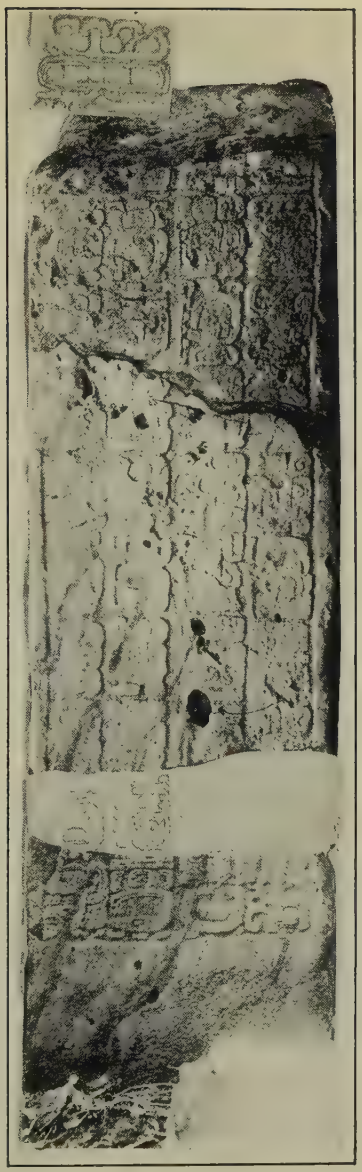
on all the stelæ were sculptured originally human figures, representing possibly the combined ruler and chief priest of the city, at the dates when each stone was set up. Of these, only three have survived, of which that on stela C is the most complete and best preserved. The figure on stela P is much weathered, while of that on stela R only the head remains, though, from a purely artistic point of view, this is probably the most beautiful of the three.

It would appear that, with one exception, the Initial Series inscription faced towards the temple, the figure of the ruler looking towards the plaza. Stela F is the single exception to this rule, as on it the inscription faced the temple, while the side facing the plaza was entirely unsculptured.

Stela D. This, one of the most important stelæ at the ruins, was made of hard limestone. It had been broken, probably by the fall of some great tree, into two unequal pieces, the lower of which still stood in a slanting position on its original foundation. The upper, and larger, fragment measured 48 ins. in height, 42 ins. in breadth, and 6 ins. in thickness. The lower fragment measured 42 ins. in length. On the side facing the plaza had been sculptured a life-sized human figure, but as this surface had been uppermost, in both fragments, it was so badly weathered that only the deeper parts of the sculpture were unobliterated.

Upon the surface facing the temple had been sculptured originally no less than 112 glyph blocks, making it one of the longest single inscriptions yet found in the Maya area. The upper four glyph blocks to the left of the inscription are occupied by the Initial Series Introducing Glyph. The right upper corner of the stone, containing six complete hieroglyphics and parts of three others, has

A B C D



1
2
3
4
5
6
7
8
9
10
11

A1. } Introducing Glyph.
B1. }

A2. 9 Bactuns.
B2. 15 Katuns.
A3. 0 Tuns.
B3. 0 Uinals.
A4. 0 Kins.
A10. 4 Ahau.
B10. 13 Yax.
B11. Katun 15.

9.15.0.0.0.
4 Ahau, 13 Yax.

October 22nd,
A.D. 471,
of our era.

Stela E

[*p.* 132

been broken away, and, though diligent search was made for it in the vicinity of the stela, it could not be found. It cannot have disintegrated, as the stone is one of the hardest and most resistent found at the ruins. It may, however, have been flung to a considerable distance from the stela, probably by the same force which fractured the latter, and we hope, on renewing the search next field season, to be able to locate this extremely important fragment.

After we had left the ruins, I may say, a portion of this missing fragment was discovered, and it is to be hoped that, during our next visit, we may find all the fragments, and so complete the entire inscription. The hieroglyphics themselves are archaic in style, and so irregular in size as to make the spacing of both columns and lines highly unsymmetrical.

In illustrations of the stelæ the columns of glyphs are lettered A to H, and the rows are numbered, for convenience in reference. In A 1, B 1, A 2, B 2 on this stela is recorded the Initial Series Introducing Glyph. In A 3 is recorded Bactun 9, in B 3, Katun 3, in A 4, 0 Tuns, in B 4, 9 Uinals, and in A 5, 0 Kins.

Dr. Morley, who is unquestionably the greatest living authority on the Maya glyphs, is of opinion that the Katun coefficient should be 8, and not 3, the bar indicating 5 having been accidentally omitted. His reasons for this are that the month sign of this Initial Series terminal date, 3 Chen, is seen following glyph A of the Supplementary Series, while in A 4 is recorded Katun 8, followed and preceded by what he regards as a hand, ending signs, indicating the end of a Katun 8.

He, therefore, reads the whole Initial Series as 9.8.0.0.0, 5 Ahau, 3 Chen.

If this interpretation is correct, and it has every

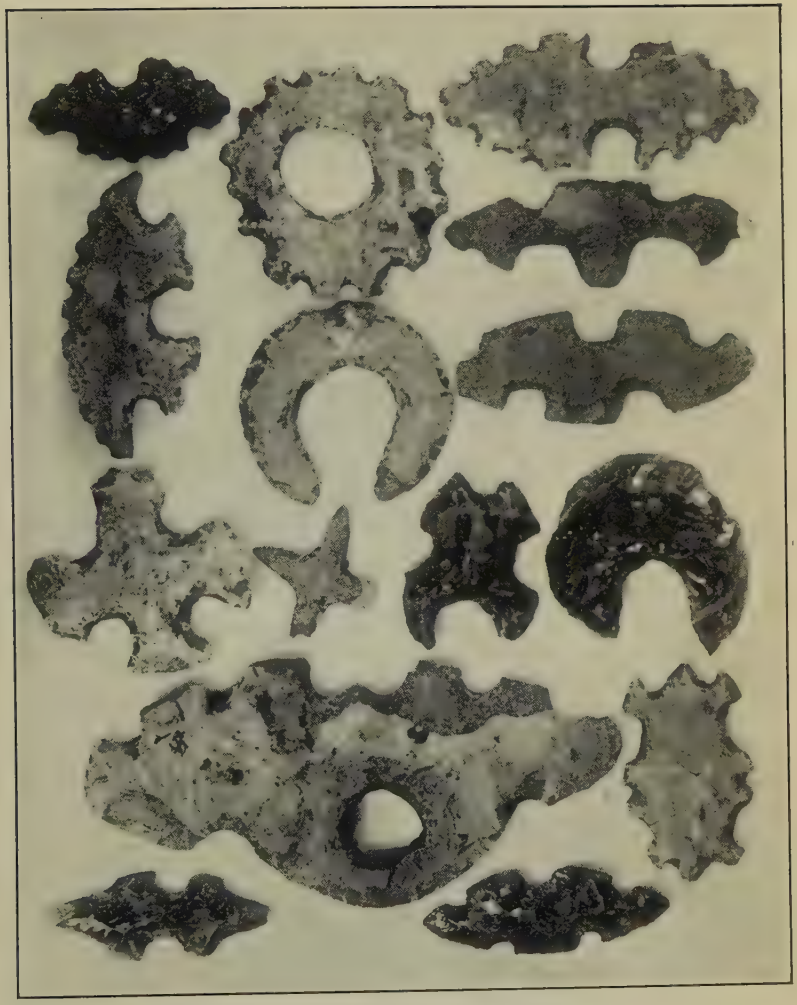
appearance of being so, it would constitute one of those curious cases, found all over the Maya area, though of extremely infrequent occurrence, in which the ancient sculptors made a mistake in recording a date. These can, I think, only be accounted for on the hypothesis that the sculptors themselves were unacquainted with the extremely complicated calendar system, and worked on plans supplied them by the priests, probably drawn, like the few codices which have descended to us, on paper made from the fibre of the Agave Americana. Once the mistake had been made, it would have been impossible to rectify it, short of starting a new stela, a herculean task to workers employing only stone tools. One cannot help wondering at the probable fate which overtook any sculptors found guilty of such a heinous crime. A second Initial Series date is recorded on this stela, the Introducing Glyph of which is seen in H 3. In G 4 are recorded 9 Bactuns, in H 4, 10 Katuns, in G 5, 15 Tuns, in H 5, 0 Uinals, and in G 6, 0 Kins.

The day and month, 8 Ahau, 13 Mac, are found in H 6 and G 10 respectively. The whole Initial Series is 9.10.15.0.0, 8 Ahau, 13 Mac, and records the date upon which the stela was erected.

On the plaza side of this stela stood a small circular stone altar, 30 ins. in diameter, broken into several fragments, which appeared to have stood originally about 2 ft. from the stela. It was flat, crudely sculptured, and only a few inches thick.

Stela E was situated immediately to the east of stela D. It was made of a fairly hard limestone, perforated by many large holes, which were probably originally filled with cement, over which the sculpture was carried.

Upon the surface facing the plaza was sculptured, in low relief, a life-sized human figure, but this has been so



FLINT AND OBSIDIAN OBJECTS FOUND BY BASE OF STELA E

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badly weathered that it is now extremely difficult to make out. The stone has been broken, probably in the same manner as the other stelæ, by the fall of a great tree, into five fragments, a great part of the uppermost of which is missing. The second and third fragments fit together fairly well. The fourth piece contains a single row of glyphs only, as does the bottom piece, which is still *in situ*. The original height of the stela was approximately 14 to 15 ft.

In A 1 and B 1 are recorded the Initial Series Introducing Glyph. In A 2, the Bactun place, the glyph has been almost entirely obliterated, but the remains of the four dots of the coefficient 9 are seen above, and we may assume that the Bactun recorded is 9. In B 2 only a single bar is left of the Katun numerical coefficient. In A 3, B 3, and A 4 are clearly recorded, respectively, 0 Tuns, 0 Uinals, and 0 Kins. In B 11, we see the Katun sign, with what appears to be the numerical coefficient 15. In A 10 is an Ahau sign, the numerical coefficient of which has been broken away, and in B 10, the month sign Yax, with what appears to be the numerical coefficient 13—the two bars are clear, and, judging by the size of the single dot remaining, there would appear to have been, originally, three dots above there.

The entire date may be read, 9.15.0.0.0, 4 Ahau, 13 Yax, corresponding to October 27th, A.D. 471.

Close to the base of this stela, and buried in its foundations, on the side facing the plaza, was found a cache containing nearly one hundred eccentrically shaped objects of obsidian and flint, varying in length from 1 to 7 ins. These objects were of a great diversity in form, and rings, crosses, crescents, plain and indented spearheads, scorpion-shaped objects, and others of even more grotesque contour, were all represented. They are

precisely similar to eccentrically shaped objects of the same materials found beneath stelæ at the city of Naranjo, in the Peten district of Guatemala, by Theobert Mahler, and by myself, beneath stelæ at the ruins of Xunantunich, in British Honduras. Similar objects have also been found near the two oldest stelæ at Quirigua, in Guatemala, and in many other places. They will be discussed later.

On the plaza side of this stela, and at a distance of about 2 ft. from its base, was found a small altar, rather crudely sculptured from limestone. It represents a frog, with a human head, and measures 33 ins. in length, 22 ins. in breadth, and 11 ins. in height. It was almost buried in vegetal mould, and stood apparently in its original position, though several water-worn pebbles some 6 ins. in diameter, and nearly spherical in form, were found in the vicinity, which may have served as feet for this, or one of the other altars discovered, a supposition to which some probability is lent by the fact that the Carnegie Institution's expedition to Uaxactun found similar water-worn stones used as altar-feet, and completely buried beneath the humus, in one of the plazas. This frog sculpture was very much weathered, but is still quite easily recognisable.

Stela F. This was the largest monument at the site, and occupied a nearly central position in the front row of stelæ. Its back faced almost the centre of the main stairway upon the front of substructure I, its front faced stela U, in the centre of substructure III. It was made of hard, compact limestone, measured 16 ft. in length, 4 ft. 2 ins. in breadth, and 1 ft. 8 ins. in thickness, and probably weighed in the neighbourhood of five tons. Most unfortunately, it had fallen with the sculptured side up, so that, hard as the stone was, and deeply as the inscription had been cut, little but the outline of the

glyph blocks could be made out with any degree of certainty.

When we first encountered this great fallen monument, we congratulated ourselves on the probability of finding, on the side in contact with the earth, an Initial Series date and a plate of glyphs, far surpassing anything we had heretofore seen at the ruins, for the stela was much the largest at the site, completely dwarfing those adjacent to it in the line. It occupied the central, and, so far as one might judge, the most important position, immediately in front of the stairway leading to the main temple, and the stone itself was so resistent that contact with the earth, even for fifteen centuries, was not likely to have obliterated the inscription to any extent.

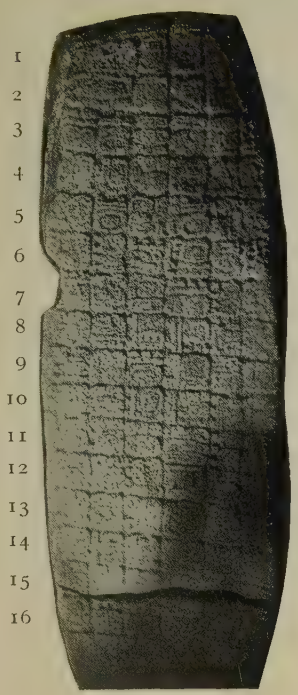
We obtained a couple of powerful mahogany cutter's jacks, brought them to the ruins, with considerable difficulty, and, digging holes beneath each edge of the stela, gradually lifted it, amidst great excitement. What was our disgust, on half turning it over, to find that the under surface was absolutely plain. It was, indeed, flat and smooth as a billiard-table, entirely unpitted or worn from contact with the soil, and, had there been any inscription upon it, this would probably have been in mint condition. We were naturally greatly disappointed, but, after all, this was only one of the innumerable paradoxes and contradictions which the archæologist encounters in dealing with that extraordinarily paradoxical race, the ancient Maya.

On the side of this stone, facing the substructure, was a vertical column of five very large glyph blocks, measuring 8 ft. 4 ins. by 2 ft. 4 ins., the contents of which were, as already stated, indecipherable. Above the uppermost glyph block appeared the numerical coefficient 3, expressed by 3 dots; above the second, which was very

much more weathered, was what appeared to be the coefficient 13, expressed by 2 bars and 3 dots. Dr. Morley regards this as recording 3 Ahau, the ending of Tun 13, and in this I agree with him. The only place in Bactun 9 where this can occur is 9.9.13.0.0, 3 Ahau, 3 Cumhu, which may be provisionally accepted as the date recorded upon this stela.

In this stela, unlike all the others we examined in the plaza, the side containing the inscription was turned to face the plaza, while the plain side or back faced the great temple. Around the hole which had contained the base of the stela was found what constitutes probably the largest cache of eccentrically shaped objects, cores, and knives, of flint and obsidian, ever found in the Maya area. They number in all 600, and include a flint 6 ins. long, somewhat crudely chipped to represent a man. With them was a very beautiful, flat jade ring, $3\frac{1}{2}$ ins. in diameter, probably a gorget, as two minute holes were bored in its periphery, evidently for suspension. These objects were scattered broadcast for several feet around the base of the stela, and some were even found beneath it.

Stela G. This stela stood immediately to the east of stela F. Only the base of it was found, and this was completely covered with vegetal humus. It was made of hard limestone, and measured 43 ins. in length, 30 ins. in breadth, and 7 ins. in thickness. Fragments which, judging by the nature of the stone, had at one time formed part of the stela were found on the plaza side of it, but they were so badly weathered that nothing could be made out of any inscription or sculpture on them. It would almost seem as if, in some cases, the portions of the stelæ above the ground had been completely broken up and destroyed, probably by the successive falls upon them of great tree-trunks.



STELA H

A1, B1, A2, B2. Introducing Glyph.

A3. 9 Bactuns.

B3. 11 Katuns.

A4. 0 Tuns.

B4. 0 Uinals.

A5. 0 Kins.

B5. 12 Ahau.

9.11.0.0.0.
12 Ahau, 8 Ceh.
Or December 12th, A.D. 392, contemporary date of Stela.

Second initial series is recorded from D7 to D9. 9.7.12.6.7.

STELA P (*See p.* 148)

Stela H. This stela was situated immediately to the east of stela G. It was made of tough conglomerate. The stone was 10 ft. in length, 10 ins. in thickness, and 35 ins. in breadth at its broadest point, which was near the centre. The base, which had been buried in the earth, and which must have afforded a very insecure foundation for such a great mass of stone, was pointed, and the stela itself narrowed down somewhat in breadth towards the summit, evidently conforming in shape to that of the mass from which it had originally been cut. The stela had been broken in two, 6 ft. 10 ins. from the summit, the line of fracture destroying some of the penultimate row of hieroglyphics. On the side facing substructure I were sculptured 5 rows, each containing 16 glyph blocks, and one row containing 15, making in all 95 glyph blocks. On the back, which had been turned up and exposed to the weather, were traces of a life-sized human figure, in low relief, very much weathered. The hieroglyphics themselves, having been turned towards the earth, were fortunately in a fair state of preservation. Beginning at the left-hand upper corner, the first four glyph blocks, A 1, B 1, A 2, B 2, contain the Initial Series Introducing Glyph. In A 3 is shown, very plainly, the Bactun sign, with the numerical coefficient 9—a bar and 4 dots—as a superfix. Next to this, in B 3, is seen the Katun sign, with the numerical coefficient 11—2 bars and a dot—as a superfix. In A 4, the Tun place, is a very much weathered glyph, with the 0 coefficient. In B 4, the Uinal place, the glyph, though much weathered, has undoubtedly the coefficient 0. In A 5, the Kin place, the coefficient is again undoubtedly 0. In B 5 is recorded the day in the Calendar Round upon which the Initial Series date fell. This must be an Ahau, as 0 Kins are recorded

in the Initial Series, and the coefficient is plainly 12—2 bars and 2 dots. The whole date therefore reads, 9.11.0.0.0, 12 Ahau, 8 Ceh. This date, 9.11.0.0.0, 12 Ahau, 8 Ceh, in the Maya long count corresponds to December 15th, A.D. 293 of our era.

A second Initial Series is recorded on this stela, from C 7 to D 10, namely, 9.7.12.6.7.8 Manik, 10 Kayab, but this is not the contemporaneous date of the stela. About two feet from the stela, on its plaza side, was found a small altar, in the form of a frog with a human face. This was completely covered with vegetal humus, and was not discovered till excavation was carried on around the stela. The altar, though crude, was in a good state of preservation, and certainly the most carefully sculptured of all the altars found on the plaza. It was made of conglomerate, and measured 37 ins. in length, 19 ins. in breadth, and 9 ins. in thickness.

A B C D E

C1, D1, C2, D2.
Introducing Glyph.
C3. 9 Bactuns.
D3. 12 Katuns.
C4. 0 Tuns.
D4. 0 Uinals.
C5. 0 Kins.
C11. 10 Ahau.
D11. 8 Yaxkin.

9.12.0.0.0.
10 Ahau, 8 Yaxkin.

Corresponding to
September 1st, A.D. 412.

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10
11

STELA K

MUCH OBLITERATED HUMAN FIGURE
ON STELA K
[*Carnegie Institution of Washington photo.*

[*p.* 140

CHAPTER X

Stela K—Records the date 9.12.0.0.0, 10 Ahau, 8 Yaxkin, corresponding to September 1st, A.D. 412—Cache of jade and obsidian found beneath the stela—Stela L—Probable date recorded—Stela M—Date recorded 9.14.0.0.0, 6 Ahau, 13 Muan, corresponding to February 3rd, A.D. 452—Stela N—Stela O—The most beautifully executed stela at the ruins—Date recorded 9.7.0.0.0, 7 Ahau, 3 Kankin, corresponding to February 8th, A.D. 314—Curious variant of the Kankin glyph—The earliest stela found at the ruins—Stela P—Impossible at present to decipher the date recorded on this stela—Stela Q—Date recorded 9.8.0.0.0, 5 Ahau, 3 Chen, corresponding to October 26th, A.D. 333—Stela R—Beautifully sculptured head and head-dress—Stela S—Stela T—Stela U—Stela Y—Two Initial Series dates recorded 9.8.0.0.0, 5 Ahau, 3 Chen, and 9.10.15.0.0, 6 Ahau, 13 Mac—The latter is the contemporary date of the stela—The "ghost glyph."

Stela K. This stela, which stood west of Stela H in the line, was made of dark brown sandstone, probably derived from the bed of the small creek within a few hundred yards of the plaza. It measured 103 ins. in length, 36 ins. in breadth, and 7 ins. in thickness. It had been broken in two—evidently at some remote period, as the exposed parts of the fractured surfaces were very much weathered—and a large triangular fragment was missing from the left side, which could not be found. Most fortunately, both fragments had fallen with the sides containing the hieroglyphics inscription downwards, so that this was in a comparatively good state of preservation, and the date was easily to be read. Upon the side facing the plaza, as in the other stelæ, had been sculptured a life-sized human figure, now almost indistinguishable. Upon the side facing substructure I was an inscription containing 5 columns of 11 glyph blocks each, or 55 in

all. Of these, however, 8 were missing, having occupied the lost triangular piece. This surface of the stone seems to have undergone a curious partial weathering, resulting in some of the glyphs being left in an excellent state of preservation, while others were absolutely indecipherable.

The Initial Series date upon this stela does not commence at the left-hand upper corner of the inscription, as is the almost invariable rule throughout the whole Maya area, but near its centre. In glyph blocks C 1, D 1, C 2, D 2 will be observed the Initial Series Introducing Glyph. At C 3 is very clearly recorded the Bactun glyph, with the coefficient 9 as a superfix. In D 3 the Katun glyph, and its coefficient, are both somewhat obscure, but the number indicated appears to be 12—2 bars and 2 dots. In C 4, 0 Tuns are quite plainly indicated. In D 4 both the Uinal glyph and its coefficient are very obscure. In C 5, 0 Kins are very plain. If we now look down to the last row of glyphs, we see recorded, in C 11 and D 11, two glyphs in a beautifully clear state of preservation, which completely elucidate the whole inscription. These are 10 Ahau in C 11, and 8 Yaxkin in D 11. These record the day and month in the Calendar Round upon which the Initial Series date fell, and, as only one Katun, in Bactun 9, ended upon this date, namely Katun 12, we may be perfectly certain that it is the end of this Katun which is here recorded. The whole inscription, then, reads 9.12.0.0.0, 10 Ahau, 8 Yaxkin, corresponding to September 1st, A.D. 412.

At the base of this stela, on the side facing substructure I, and not, as in the case of all the other stelæ, on the plaza side, was found a cache containing a large jadeite bead, and nearly 100 obsidian objects, including cores,

knives, and eccentrically shaped objects, very similar to those found at the base of stela F.

Stela L. Of this monument nothing but the base remained, still standing upright in its original foundation. It measured 30 ins. by 28 ins., and was made of rather soft sandstone. No trace of the upper part of this stela was found, and it was only on excavation that the base was unearthed, and this, situated midway between stelæ K and M, indicated that it had once formed part of a stela. Stela K, immediately to the west of this stela, bore the date 9.12.0.0.0, and stela M, to its east, as we shall see, bore the date 9.14.0.0.0; it is, consequently, only reasonable to suppose that this stela bore the date 9.13.0.0.0, 8 Ahau, 8 Uo, recording the end of Katun 13 of Bactun 9.

Stela M. This monument had evidently, at some remote period, been completely uprooted, and broken into fragments. We discovered and fitted together three of these, and so obtained what appeared to have constituted the major portion of the stela above ground. It was made of hard limestone, and the reconstructed portion measured 58 ins. in length, 34 ins. in breadth, and 6 ins. in thickness. On one side, probably as in the case of all the other stelæ, with the exception of F, there were traces of the sculpture of a life-sized human figure, in low relief, now so badly weathered as to be hardly recognisable. On the opposite side were engraved 4 columns of glyphs. The second, third, and fourth row each contained 7 glyphs, the first row, from which the last two glyph blocks had been broken, only 6, making 27 in all. It is impossible to tell, now, how many glyph blocks the stela originally contained, unless the lower part should be recovered at a later date. All but a few of the glyphs, as will be seen on consulting the

photograph, were very badly weathered, and some of them completely obliterated. There remains, however, I venture to think, sufficient of the inscription to justify us in reading the date recorded as the end of Katun 14 of Bactun 9. In A 1 is seen the Initial Series Introducing Glyph, very clearly portrayed, with its Katun sign, subfix, and superfix. Here, unlike most of the other Chumuchà Initial Series dates, it occupied one, and not four, glyph blocks. In B 1 is shown the head variant for the Bactun, somewhat obliterated, with a very clear numerical coefficient of 9—1 bar and 4 dots—in front of it. In A 2 is shown the head variant for the Katun sign, with a numerical coefficient which is much more plainly discernible as 14 in the original—where the split down the bar, making it 10, and not 5, and the third dot from the top are quite unmistakable—than in the photograph. In B 2 the glyph has been almost completely obliterated, but the numerical coefficient is clearly 0 ; the same applies to glyph blocks A 3 and B 3, though in the latter very little is left even of the coefficient. In A 4 is probably recorded the day in the Calendar Round upon which the Initial Series date fell ; as the series ends in 0 Kins, the day sign must be Ahau, and the numerical coefficient is apparently 6. The whole Initial Series date, then, reads 9.14.0.0.0, 6 Ahau, 13 Muan, corresponding to February 3rd, A.D. 452.

There is no sign of the month, 13 Muan ; we must, consequently, conclude that it was either recorded on that part of the stone which has been broken away or is amongst the obliterated glyphs on the part now before us.

Stela N. This was the twelfth and last in the row in front of substructure I. It is made of a rather soft, friable conglomerate.

A B

A1, B1, A2, B2. Introducing Glyph.

A3. 9 Bactuns.

B3. 7 Katuns.

A4. 0 Tuns.

B4. 0 Uinals.

A5. 0 Kins.

B5. 7 Ahau.

A6. 3 Kankin.

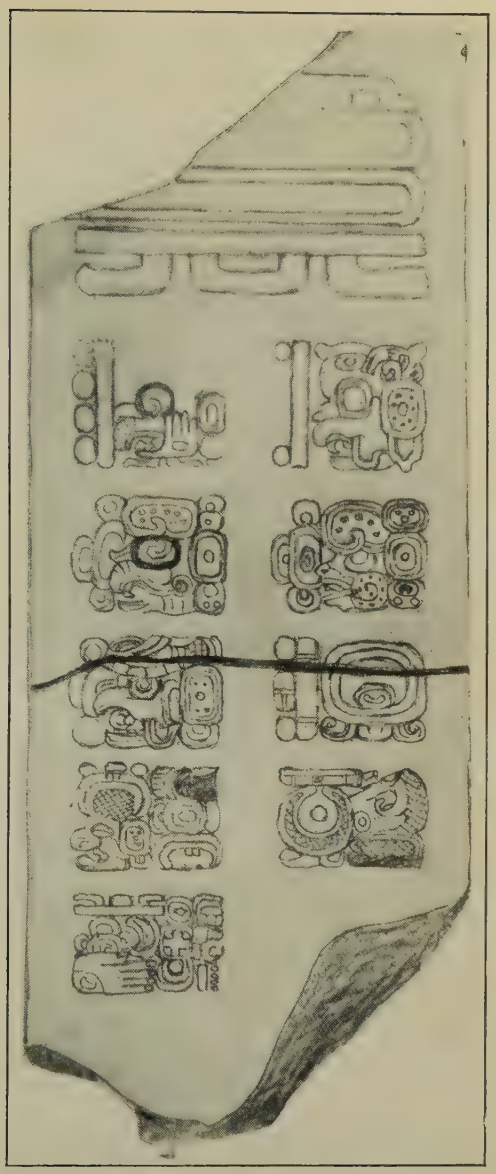
9 Bactuns of 400 years each.

7 Katuns of 20 years each.

0 Tuns, or years of 360 days.

0 Uinals, or months.

0 Kins, or days after the commencing date of Maya Chronology, October 14th, 3373 B.C.



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STELA O

The date falls on a day 7 Ahau, the third of the month Kankin in the calendar round, and corresponds to February 8th, A.D. 314, which is the contemporary date of the monument.

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It had been broken off from its base just below the hieroglyphic inscription. The upper fragment had fallen upon the side containing the inscription, and it was hoped that when the stone was turned over this would be found in good condition. Unfortunately, this hope was not realised, as, owing to the nature of the stone, the glyphs had been so defaced by contact with the earth that it was found impossible to read a single one of them. The upper fragment of the stone measured 104 ins. long, 38 ins. broad, and 8 ins. in thickness. Upon it were 4 columns, each containing 9 glyphs, or 36 in all. If, as seems probable, a human figure had been sculptured upon the reverse side of this stone, which had been exposed to the weather, all trace of it had been completely obliterated.

Stela O. The portion of this stela which was found measured 66 ins. in length by 28 ins. in breadth. Its thickness could not be determined, as the stone was composed of three laminæ, the back two of which had been broken away. It had been smashed into two nearly equal parts, both of which were found on the northern slope of the central part of substructure I, separated from each other by several yards. It had probably stood, originally, on the summit of this substructure, and, being struck by a falling tree, was broken off from its base, the upper part at the same time being broken in two, and one half thrown to one side, the other to the other side of the slope of the substructure.

The inscription upon this stela is at once the clearest and most beautiful found by us at the site. It is divided into two columns, that on the left containing 7 glyph blocks, and part of an eighth, that on the right 6 glyph blocks, and part of a seventh. The lower part of the

stone having been broken away, it is impossible to say how many rows are missing from the bottom of the inscription, but, unless the usual proportion of height to breadth in stelæ has been greatly exceeded, certainly not more than one or two.

In A 1, B 1, A 2, B 2 is recorded the Introducing Glyph to the Initial Series. In A 3 are recorded 9 Bactuns. The upper dot and the upper part of the bar of the numerical coefficient are missing, but, apart from the fact that no other Bactun than 9 could be indicated, it is obvious, from the length of the glyph block and size of the dots, that no other number than 9 could have been fitted in the space available. The upper part of the face variant of the Bactun glyph is missing, but the extended hand, the thumb of which forms the lower jaw, the most essential element in this glyph, is very clearly indicated. In B 3 is very clearly recorded Katun 7, the numerical coefficient, expressed as a bar and 2 dots, and the Katun sign by the face variant, of which it is a very typical example. In A 4 are recorded 0 Tuns, both the zero sign and the face variant of the Tun sign being very clear and characteristic. In B 4 are recorded 0 Uinals. Here again the zero sign is very plain, as is also the face variant for the Uinal, consisting of a frog's head, with a great scroll projecting backwards from the corner of the mouth. In A 5 are recorded 0 Kins, the face variant of the kin, or day, sign easily recognisable by the beaded band in its head-dress. In B 5 is recorded the day 7 Ahau, and in A 6 the month 3 Kankin. The sign of this month is exceedingly unusual, and I do not recall any instance in which it is written in this way throughout the whole Maya area. Apart from the context, however, which leaves no possibility of error in its identification, the month may be recognised by the Kin sign, 5 dots

THE FIGURE ON BACK OF STELA P

STELA O
9.7.0.0.0. 7 Ahau, 3 Kankin.
February 8th, A.D. 314

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within a small cartouche, which is seen at the back of the head, below the head-dress.

The whole inscription then reads 9.7.0.0.0, 7 Ahau, 3 Kankin, corresponding to February 8th, A.D. 314.

Stela P. This stela is represented by its central portion only, as both the base and the summit are missing, and the most diligent search failed to bring to light either of them. Nor could it be ascertained exactly whereabouts in the plaza the stela had originally stood. The central portion was found completely buried beneath the humus, about 5 yards behind stela D. It is made of hard compact limestone, and measures 44 ins. in length, 46 ins. in breadth, and 8 ins. in thickness. Upon one side of it is sculptured, in fairly high relief, part of a human figure, rather larger than life size. The face, which is in profile, has a pleasant, benign, and quite un-Maya expression. Part of the high feather-decorated head-dress, the large round earplug, with its dependent tassel, and the nose ornament, passing transversely across the nasal septum, are all clearly indicated. Across the chest, clasped in both arms, is held, in a sloping position, an elaborately decorated ceremonial bar, very similar to that held by the figure on stela C. The lower part of this figure, beneath the ceremonial bar, has been broken away, as has the upper part, from just above the forehead. On the front of the stela are sculptured eight columns, each containing six hieroglyphics, but both above and below these are seen the remains of other rows. It would appear that this inscription, when whole, was one of the longest at Chumuchà, as it contains the same number of columns as are found on stela D, and more than are found on any other stela. All the glyphs are very much defaced from weathering, but no trace of an Initial Series date can be made out; indeed, it seems almost certain

that, if such a date was recorded, it has been broken off with the upper fragment of the stone. From the portion of this stela at present in our possession, it is impossible to arrive at the date recorded, and it is one of those in which it is hoped that the very interesting discoveries recently made by Mr. Teeple, as to the significance of the lunar count, presently to be referred to, may be of assistance to us in placing the stela in its proper chronological position.

Stela Q. A fragment of sandstone, 23 ins. in length, found lying on the ground immediately behind stela H.

It formed, almost certainly, the central part of the left half of a stela, upon which had been recorded an Initial Series date. The right edge of the fragment is very much weathered, and probably projected from the ground, the part containing the hieroglyphics being buried beneath the humus, and so protected from the weather. Upon this fragment are inscribed three hieroglyphics. The topmost represents the lower part of the head variant of the Katun sign. To the left of this is part of a bar, and two dots. Judging by the height of the next hieroglyphic, which is perfect, there is room only for one more dot, so that the entire glyph recorded 8 Katuns. The middle glyph undoubtedly records 0 Uinals, as both the zero coefficient and the head variant of the Uinal sign—though the spiral from the angle of the frog's mouth has been obliterated—are very plain. The last glyph is almost certainly 5 Ahau, the profile variant for the Ahau sign being used.

We have then definitely recorded Bactun (?), Katun 8, Tun (?), Uinal 0, Kin (?), 5 Ahau, Month (?). As all dates at the ruins occur in Bactun 9, we may assume that this date is no exception to the rule, and, as nearly all the inscriptions record Katun endings, we may take it that this

Head and Head-dress from front of Stela R

The Author beside Stela O

records the end of Katun 8, consequently we have 9.8.0.0.0, which must fall on a day 5 Ahau, 3 Chen, of the Calendar Round, corresponding to October 26th, A.D. 333. This is the same date, curiously enough, as was found by me, at the ruins on the Chetumal Bay, two years ago, which have many other points of resemblance to Chumuchà, notably the entire absence of Maya rooms, or arches, and the presence of great stone-faced pyramids, used as substructures for the support of wooden temples.

It is impossible to tell where the stela of which this fragment formed a part was originally situated, as, being so small, it might easily have been moved a considerable distance from its original site by growing roots, ground lianas, or falling trees.

The original stela, being made of rather soft sandstone, was probably broken up into small pieces, difficult to distinguish, after they had been exposed for centuries to the rain, from other fragments of sandstone, which are to be found scattered about the plaza in considerable numbers.

Stela R. A fragment of sandstone which had evidently formed part of a stela. It was found close to Stela Q. The stone is hard, and the sculpture upon it in a remarkably good state of preservation. No other pieces of this stela were found, which is greatly to be regretted, as, from an artistic point of view, it is one of the most beautiful pieces found at the ruins ; moreover, owing to the nature of the stone, it is probable that the sculpture upon it would have been in a good state of preservation. A human head, in profile, is depicted, with a portion of the usual elaborate and lofty head-dress. The most remarkable thing about the face is the curiously receding, narrow, quasi-reptilian lower jaw, which nearly amounts to a deformity, and is so characteristic that it would almost

force upon one the conclusion that it is meant as a portrait of some individual of the period—indeed, there is every probability that all the human figures adorning the backs of the stelæ were portraits of rulers, or priests, living at the time the stelæ were erected.

Stela S. This consisted of one large and several small fragments of sandstone, upon which traces of sculpture were still discernible, and which had evidently at one time formed parts of a stela. They were found buried beneath the humus at the base of substructure I, on the side facing the plaza.

Stela T. A fragment of limestone, found close to stela S, which, judging by its size and shape, had evidently formed part of a stela. The sculpture upon it had been obliterated, almost completely.

Stela U. This stela was found on the summit of substructure III, on the side facing the plaza. It had been broken off at the base, and the upper portion broken in two.

Upon one surface were 4 columns of hieroglyphics, with 26 perfect and 4 imperfect glyph blocks. Unfortunately the stone was so badly weathered that it was found impossible to decipher the date recorded.

The top left-hand glyph is probably the Introducing Glyph of an Initial Series, but the Bactun, Katun, Tun, Uinal, and Kin signs, with their numerical coefficients, are hopelessly obliterated. Some of the other glyphs are in a moderately good state of preservation, though the essential ones have disappeared. The stone, which was conglomerate, measured 35 ins. in breadth, and the two remaining fragments were, together, 65 ins. in length.

Stela Y. This stela was situated 18 ft. from the western end of substructure IV, on the side facing the plaza. Only the upper part of the stela, which is broken into six

STELA Q

1. 8 Katuns. 2. 0 Uinals. 3. 5 Ahau.

Entire date is probably 9.8.0.0.0. 5 Ahau, 3 Chen, corresponding to October 26th, A.D. 333.

fragments, was recovered. This, when the pieces were fitted together, measured 34 ins. in length by 46 ins. in breadth. It contained 8 columns of 5 glyph blocks each, but obviously a great part of the bottom of the inscription was missing.

Glyph blocks A 1, B 1, A 2, B 2, are occupied by the Initial Series Introducing Glyph. In A 3 is recorded, very clearly, Bactun 9, the ordinary symbol for the Bactun being used.

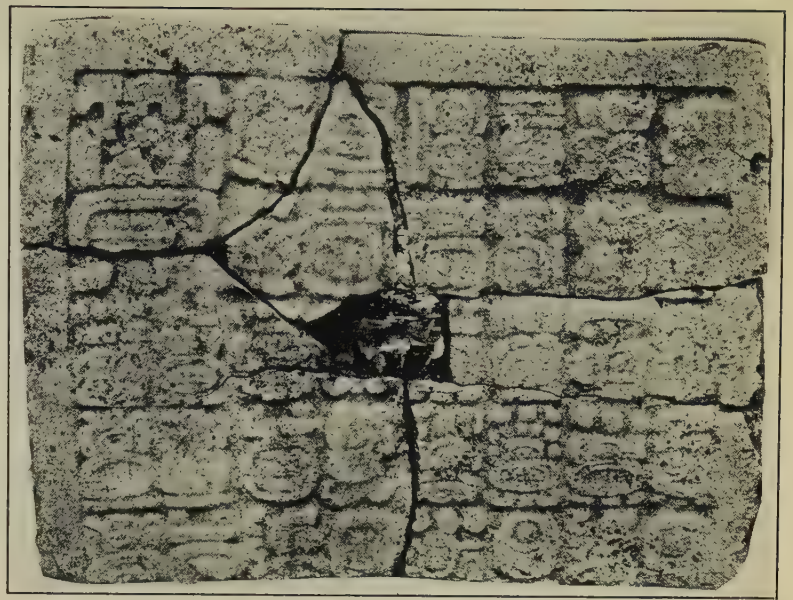
Glyph block B 3 contains the Katun sign, its numerical coefficient, however, is greatly defaced and very obscure. A bar, surmounted by a single dot, on its right is clearly to be distinguished, and, judging by the size of the dot and the length of the bar, there was room for one more dot, in which case the numerical coefficient of the Katun would have been seven. In A 4 are clearly recorded 0 Tuns; in B 4, 0 Uinals; in A 5, 0 Kins; and in B 5, 7 Ahau, the day on which the Initial Series ended, so that the Initial Series recorded is probably 9.7.0.0.0, 5 Ahau, 3 Kankin.

This Initial Series is, however, of less importance than a second one found upon this stela, as it does not record the contemporary date of the monument. At E 1 are recorded, very clearly, 10 Katuns, at F 1, 15 Tuns, at E 2, 0 Uinals, and at F 2, 0 Kins. This is almost certainly the end of an Initial Series, the Introducing Glyph and the Bactun sign of which were recorded in the last two spaces of the two preceding columns, C and D, which have been broken away, and were not found. The Initial Series here recorded appears to have been 9.10.15.0.0, 6 Ahau, 13 Mac, and this was, almost certainly, the contemporary date of the stela.

Rather a curious thing happened in connection with this stela on the last day of our stay at Chumuchà. One

of our Indians took several snapshots of the stela, with Clive-Smith standing beside it. All of these were, with one exception, perfectly normal, though by no means first-class photographs. They showed the blank space left by the missing piece of the stela, at the point E 3. The last photograph, however, though taken immediately after the others, and without moving either the camera or the stone, showed the entire picture with a sort of haze obscuring it, and in the blank space, very plainly and distinctly to be seen, a hieroglyphic which was most certainly not there. We called this the "ghost glyph," but were, I must admit, at a loss to account for its mysterious appearance.

STELA M. A1, Introducing Glyph. B1, 9 Katuns. A2, 14 Katuns. B2, 0 Tuns. A3, 0 Uinals. B3, 0 Kins. 9.14.0.0.0. 0 Ahau, 13 Muan, corresponding to February 3rd, A.D. 452. (*See p.* 144)



STELA Y (*Photo, Carnegie Institution, Washington*)

1st Initial Series. A1, B1, A2, B2, Introducing Glyph. A3, 9 Bactuns. B3, 7 Katuns. A4, 0 Tuns. B4, 0 Uinals. A5, 0 Kins. 9.7.0.0.0. *2nd Series.* E1, 10 Katuns. F1, 15 Tuns. E2, 0 Uinals. F2, 0 Kins. Bactun sign and Introducing Glyph broken from preceding. Whole date is 9.10.15.0.0. 6 Ahau, 13 Mac, contemporary date of Stela.

[*p.* 152

CHAPTER XI

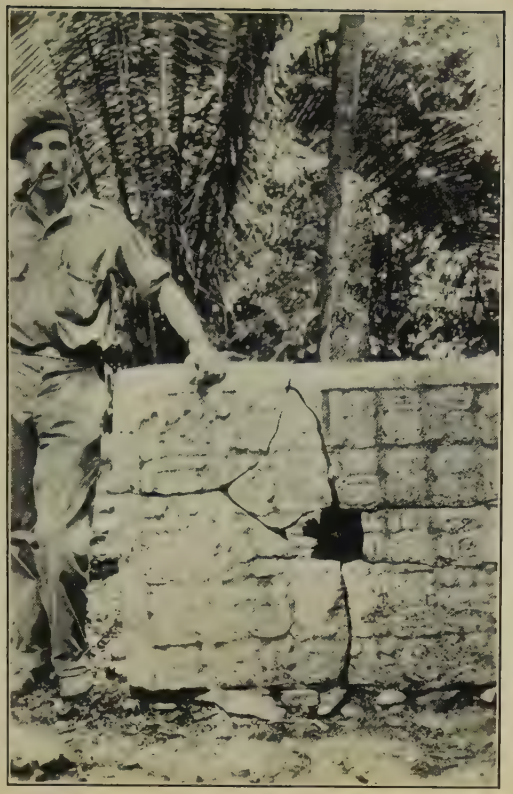
The altars—Two varieties found: circular discs, and frog-shaped altars with human heads—Contrast between the workmanship of the altars and the stelæ—Altars possibly of later date than the stelæ—The eccentrically shaped objects of flint and obsidian—Other sites at which they have been discovered—Great variety in shape and size—Their use still a mystery—They cannot all have been either weapons or ornaments—Probably ceremonial objects—Early use of the bar and dot numerals at Chumuchà—The system of numeration employed by the Maya—Recent discoveries made by Mr. Teeple in the elucidation of the Maya lunar count—Possibility of deciphering and checking inscriptions at Chumuchà in this way—Other structures found at the ruins.

The Altars. As noted when describing the individual stelæ, three small altars were found, apparently *in situ*, on the plaza sides of stelæ D, E, and H. Two of these, namely those facing E and H, were crudely cut into the form of frogs, with human faces. That in front of D was simply a roughly circular disc of limestone. In addition to these three, however, two other fragments of frog-shaped altars were found, buried beneath the vegetal humus which covered the plaza, and in the same situation a number of fragments of what appeared to have been flat, round altars, similar to that in front of stela D. It is not improbable, indeed, that beside every stela in the plaza, or at least beside those in the row fronting substructure I, a small altar formerly stood. The plain circular ones were so small, and, owing to their thinness, so easily broken, that they were probably destroyed by falling trees not very long after the desertion of the plaza as a religious centre, and the thin fragments so far removed by creeping roots from their original situations

that it is impossible now to tell to which stela each altar belonged. We find these altars in front of—or perhaps one should rather say behind, if, as seems probable, the front of the stela faced the temple before which it stood—stelæ at Quirigua and Copan, the nearest neighbours of Chumuchà to the south, and at Benque Viejo, its nearest neighbour to the north. It must, however, be admitted that the small, insignificant, roughly sculptured frog altars of Chumuchà compare but poorly with the magnificent frog altar at Quirigua.

At the ruins on the Chetumal Bay, the Bluff, Minanhà, and Lubaantun, which all seem to fall into the same category as Chumuchà, no altars have been found. At no other city throughout the whole Maya area is there such a marked contrast in size, workmanship, and artistry between the monoliths and the altars as at Chumuchà. So strong, indeed, is the contrast as almost to suggest that the altars do not belong to the same period as the stelæ, and are not contemporaneous with them, but that they were put in place at a later date by the degenerate Maya who inhabited the city subsequent to the exodus, which occurred apparently about the end of Katun 15, and who, although they were not sufficiently well acquainted with the Maya chronological system and religion to erect stelæ themselves, commemorating the end of each Katun, at least recognised the sacred nature of those monoliths left by their great ancestors, and honoured them, to the best of their ability, by erecting these poor and inartistic altars in front of them, upon which to offer sacrifices to the old gods.

The eccentrically shaped objects. Nearly 800 objects, including eccentrically shaped flints and obsidians, and obsidian knives and cores, were found in four caches around the bases of stelæ E, F, H, and K—undoubtedly



STELA Y
9.8.0.0.0. 5 Ahau, 3 Chen. October 26th, A.D. 333

STELA Y, showing the "ghost glyph"

[p. 154

the largest number ever found at any Maya site. These remarkable eccentrically shaped objects have been found, from time to time, throughout the entire Maya area, and dating from the earliest Old Empire to post-Columbian times. They have been discovered within burial-chambers, and otherwise associated with interments, at Douglas, in the Corozal district of British Honduras, near the town of Corozal itself, at Succots, in the Cayo district, and at Kendal, in the Stann Creek district. Upon the summits of large mounds they have been encountered at Seven Hills, in the Punta Gorda district of British Honduras, and at Benque Viejo, in the Cayo district. They have been taken from beneath stelæ at Naranjo, in Guatemala, at Benque Viejo, in British Honduras, and at Chumuchà. The most beautiful specimens ever found were buried beneath the floor of a temple at Quirigua, in Guatemala. One of these is nearly 18 ins. in length, and shaped like the slender branches of a tree, upon which are chipped at intervals human heads, in profile. It is probably the most exquisite piece of flint chipping now in existence from any part of the world.

A curious tale is told of its discovery. A poor Mozo of the neighbouring village dreamt that if he dug down at a certain point in the mound covering this temple he would come across a great treasure. Believing implicitly in the dream, he accordingly armed himself with pick and shovel, and, digging straight down at the point indicated, came across this cache of exquisite flints. Not recognising the value of his find, he was naturally thoroughly disgusted, and parted with them for a few *pesos*. The curious thing is that, although this mound was afterwards dug down completely, not another object of any value was found within it. The poor Mozo's disappointment on

discovering the value of the objects he had so readily parted with for a few *pesos* may well be imagined.

Occasionally, fragments of these eccentrically shaped objects are found lying loose upon the surface of the ground. They are of almost every conceivable size and shape, varying from 1 in. to 20 ins. in length, and from an ounce or two to many pounds in weight. Crescents and rings—plain, serrated, and indented—serrated spear and javelin-heads, horseshoe-shaped objects, crosses, shuttle-shaped objects, curious examples evidently meant to represent scorpions, and a host of other grotesque and intricate patterns, apparently without meaning, are all found. Zoomorphic specimens, representing rabbits, turtles, and other animals are found, and at least three anthropomorphic objects are known. One of these comes, as already mentioned, from Chumuchà ; a second, from the Northesk collection, is in the British Museum ; while a third was dredged up from the River Thames, near London, at a point where foreign-going ships were in the habit of dumping their ballast. This object is 9½ ins. in length, and almost certainly came, in the old days, from a mahogany barque or brig arriving from the Bay of Honduras. The use to which these objects were put by their fabricators has given rise to a considerable amount of controversy from time to time. Theobert Mahler, judging by a small cache which he found, superficially placed, at the ruins of Naranjo, considers that they may have been used to ornament wooden masks placed as offerings near stelæ, the more perishable parts of which have completely disintegrated, leaving only the imperishable stone objects.

This explanation, however, cannot apply to such immense specimens as were found at Douglas, nor to large anthropomorphic and zoomorphic forms. Stevens,

One of the Turtle Altars, Chumuchà

Frog Altar
[*Carnegie Institution of Washington photo.*

[*p.* 156

in *Flint Chips*, with only three large specimens found in a cave "inland from the Bay of Honduras," early in the nineteenth century, to judge by, suggests that they may have been used as "Weapons of parade, like the state partisan, or halberd of later times." It is perfectly obvious, however, that the smaller objects from Chumuchà and elsewhere were quite unsuited for this purpose. On encountering beautifully chipped crosses, crescents, and rings of obsidian, of small size and exquisite workmanship, such as have been found at Succots, Benque Viejo, and Chumuchà, one would naturally be inclined to regard them as personal ornaments, more particularly when one notices that ornaments of similar shape and design are worn by the figures sculptured on the stelæ, at these places. Again, finding large, heavy, halbert and club-shaped objects, especially when associated with spear-heads, the conclusion that they were intended as weapons would be almost irresistible.

In reviewing the evidence, one cannot avoid the conclusion that these eccentrically shaped flint and obsidian objects were used neither as weapons nor ornaments, as most of them are entirely unsuited for either purpose. In no case do they show any signs of wear, or use, and in many cases imperfect specimens, spoilt in manufacture, chips separated from the flint and obsidian cores in the process of manufacture, and even the cores themselves, are all buried in the same cache, indicating that they were specially manufactured at the time for whatever purpose they were about to be used, whether burial with the dead, or beneath a stela, or laying in the ground on some specially holy spot, such as the top of a sacred mound or temple. They were, in fact, purely ceremonial objects, though to call them by this name is merely begging the question. What the exact circumstances

under which they were used were, it is impossible for us, with our present limited knowledge of the manners and customs of the ancient Maya, to tell ; the fact remains, however, that, though they were in use all over the Maya area from the earliest to the latest times in connection with human burials and the erection of stelæ, they are only to be found at a very limited number of cities, and even at these cities, were buried under only a small proportion of the stelæ, while with human interments their use was still rarer.

In examining the inscriptions at Chumuchà, one extremely interesting fact is revealed, namely, that the numerical coefficients of the various time periods, the Bactun, Katun, Tun, Uinal, and Kin are all expressed by bars and dots ; not a single face variant is used anywhere at the site. The Maya wrote their numbers 1 to 20 by means of bars and dots, one bar signifying 5, and one dot 1. So ten would have been written as 2 bars, 18 as 3 bars and 3 dots. They further employed positional numeration, in a vigesimal system, and not, as with us, a decimal, but this was broken in the third place by substituting 18 for 20, and the positions were read from below up, and not from right to left as with us.

The above number would read, from below up, in the first place 3 dots = 3. In the second place, 1 bar and 1 dot = 6 × 20 = 120. In the third place, 2 × 360 = 720. In the fourth place, 3 + 720 = 2,160. The total number is 3 + 120 + 720 + 2,160, or 3,003. This corresponds, more

or less, to our Arabic numeration. In addition, however, they used what were known as face variants, from 1 to 20, each number being expressed by a different human face. At most of the Maya cities of the Old Empire, both these systems were used in expressing the numerical coefficients of the period glyphs, and it was at one time believed that the face numerals, though by far the more complicated and cumbersome, were in use before the bar and dot system. Recent research, however, tends to indicate that the reverse was the case, and that the bars and dots were used before the introduction of the face variants.

Now, Chumuchà is an exceedingly early site, probably, indeed, one of the earliest throughout the whole Maya area, and the fact that bar and dot numerals are used here, exclusively, goes strongly to support the hypothesis that they were in use prior to the introduction of the face variants.

Reference has already been made to the fact that some exceedingly interesting discoveries have recently been made by Mr. Teeple, of New York, with regard to the so-called Supplementary Series, which follow practically all Initial Series dates. It has for a considerable time been known that these referred in some way to the lunar calendar, but it was left for Teeple to arrive at their exact significance.

The whole matter of the lunar calendar is far too abstruse to enter into in a work of this nature ; suffice it to say that Teeple, as the result of his calculations, has arrived at the conclusion that, during the Old Empire, the various cities of which it was comprised all made use of the lunar count in conjunction with Initial Series dating.

Copan and Chumuchà almost certainly belong to the same group of cities, and used the same lunar calendar,

and it is not improbable that Teeple may be able to read the Initial Series dates on some of the monuments at Chumuchà, from their Supplementary Series glyphs, if they should be found to correspond with Supplementary Series glyphs at Copan, the Initial Series value of which is known from inscriptions on which both are preserved. This would form an exceedingly interesting and crucial test for this hypothesis, somewhat on a par with Morley's accurate prediction of the dates which would be found on certain missing stelæ from their position at the ruins, a prediction completely verified later, when the missing stelæ were found.

Other structures at Chumuchà. Truncated pyramids of all sizes, faced with rough stone blocks, and built of stones and earth, were found in considerable numbers in the bush around the plaza. These had evidently formed substructures for the support of wooden dwelling-houses, belonging to the various classes who inhabited the city. The bush was so dense that one might well pass within fifty yards of even the largest of these pyramids and not be aware of its presence, for it, also, would be covered, as to the sides and top, with great forest trees and undergrowth.

About a quarter of a mile from the plaza, along the road leading from it to Joventud Camp, was a curious structure, to which our attention was drawn very soon after our arrival at the ruins, owing to the fact that the wall which partly surrounded it for a considerable distance ran parallel and quite close to the road over which one had to travel to reach the plaza.

The structure consisted of a polygonal platform, bounded on the side towards the road, for several hundred feet, by a low stone wall, now very much in ruins, and terminating on the opposite side in a terrace sloping down to the ground-level. Upon this platform, which is flat,

and obviously specially constructed to support them, were a number of large stone-faced pyramids. Unfortunately we had neither time nor labour at our disposal to make any excavations into these, but during the next field season this should certainly be undertaken, as it is possible that these may be, not substructures for the support of houses, like most of the pyramids, but burial-mounds of persons of the better classes, possibly containing cysts, or burial-chambers.

CHAPTER XII

I mistake a shock of earthquake for a tapir caught in the tent guy-ropes—Effects of the earthquake on the Indian labourers—Their lame excuse for quitting work—The talking mask—Unpleasant prospect for us if our men deserted—An immense tree, probably one of the largest in the world—Small burial-mounds on the summit of the stone-faced pyramid—Discovery of the first Lubaantun style figurine—Figurines from both cities probably made in the same mould, indicating a contemporaneity and close connection between the two—Chumuchà probably a centre for the manufacture of beautiful polychrome pottery—Possibility of recognising provenance and date of Maya jade and pottery—A young girl's grave, and her possessions—The prevalence of the obsidian knife—One valuable object in the grave of an apparently poverty-stricken individual—A third burial-mound, and the figurines found within it—Costumes of modern Maya women—High-necked, tight-fitting dress worn by women of ancient Chumuchà—These small burial-mounds are probably those of the descendants of the people left behind at the great Maya exodus.

On Tuesday, March 27th, about one o'clock in the morning, I was awakened by a sudden and tremendous rolling and lurching of my cot. At first I thought a tapir had got caught in the guy-ropes of the tent, and, in uprooting the entire establishment, was taking the cot and mosquito-curtain with it; then, as I became more fully awake, I thought some animal had got beneath the cot, and was trying to spill me out from under the mosquito-curtain on to the ground, there to be more conveniently dealt with, and it was not for fully half a minute that I recognised the real cause of the disturbance, namely, a very smart shock of earthquake. The previous evening had been extraordinarily hot and oppressive, not a breath of air was moving, and, as I sat in my chair in the shade of a group of cuhoon palms in the corner of the plaza, I felt completely devitalised, and literally gasped

for air, as does a landed fish for his native element, the perspiration pouring down my face in torrents, though I kept perfectly still. The sky was a dull coppery colour, and faint mutterings and rumblings not unlike distant thunder came from the bush.

British Honduras is not actually in the earthquake zone, but we experience a sort of back-wash of all the seismic disturbances, so frequent and so severe in the neighbouring republics, so that we get to recognise the peculiar atmospheric condition which precedes an earthquake, or volcanic eruption, anywhere in our vicinity along the earthquake zone, even when it takes place beneath the sea, and gives rise to no more serious consequences than a tidal wave.

About six the same morning, just as I was sitting down to tea, beneath the dozen or so coroza-leaves suspended as a roof over a stick framework, which we called our dining-room, the twelve Kekchi Indian labourers working for us all turned up in a body, a circumstance in itself rather remarkable, for they generally dropped in in little groups of three or four, the inhabitants of each minute village keeping strictly to themselves, and not mixing with their neighbours of even a mile away.

At their head, and evidently acting as a sort of leader, was one of the oldest of the gang, a man named Uk, slightly more intelligent than the rest, and with a sufficiently good working knowledge of Spanish to be able to transmit simple orders and directions to the others.

He produced from his shot-bag a very nicely carved mask, about $5\frac{1}{4}$ ins. long by $3\frac{3}{4}$ ins. broad, made of hard white limestone, dumped it upon the table, and announced that they were all returning to their villages that morning, as they did not wish to work any more at

the ruins, and would be very much obliged if I would give them their wages up to the previous day. Uk was an extremely unpleasant type, to whom I had never taken very much; his broad, flat nose, coarse black mane of hair, with a few long, straggling hairs on each side as a moustache, his oily, yellow skin, and very obliquely set, twinkling little eyes, all gave him a strongly Mongolian cast of countenance, while closely set, deep pits of smallpox did not add to the charm of an already highly unprepossessing appearance. His superior intelligence was, I knew, used merely to gain considerable influence over the other simpler Indians, and to suggest to them such iniquities as a slacking off work when no one in authority was about, or a strike for higher wages than they were entitled to.

But this announcement that they all wished to quit the work immediately was a staggerer, for they had engaged to carry on at least till Holy Week, were getting exceptionally good wages, and seemed perfectly satisfied with their work.

At first, I could get no explanation at all for this extraordinary conduct, beyond the fact that they wanted to get back and work on their *milpas*. Now, no lamer excuse than this could be adduced, for I had carefully chosen men who had already completed the bush felling for their *milpas*, and the only four who had not cut quite enough had but just returned from a week's leave to add another *manzana* to the bush they had already felled. At last, bit by bit, I extracted the true explanation of their conduct from them, and it was a curious one.

The previous evening, just before knocking off work at 4 o'clock, so Uk said, he had found the curious limestone mask which he had just handed me, close to the

bones of a girl, in a small burial-mound on top of a great stone pyramid. As it was just time to leave work, he thought he would take it to his camp and hand it over in the morning, instead of delivering it at once to us, as he should have done.

During the night, or rather in the early hours of the morning, he was suddenly awakened by hearing a loud voice in his hut, and realised that it proceeded from the limestone head which lay close beside him in his shot-bag. The words spoken by the head were in the Kekchi language, and warned him that he and the other Indians were doing very wrong in interfering with the graves of their remote ancestors, and that, though worshippers of the God of the Christians, over whom the old gods had no control, could not be punished for this desecration, the Indians themselves could, and would, be punished very severely, unless they left the work immediately, without even turning another spadeful, and never returned to it again.

These occurrences he related to the other Indians next morning, when they all promptly agreed to act on the warning, and, having obtained their wages, to shake the dust of the ruins from their feet, return to their villages, and never again tempt the gods of their ancestors by interfering with the graves of the latter.

Now the limestone face was a very curious and remarkable one. It portrayed an individual with a wide mouth and thick, sensual lips, a broad, flat nose, wide-open eyes, a much wrinkled forehead, and small, closely set ears. In fact, it approached the grotesque, and probably represented some ancient god, but it could not be denied that it presented a striking resemblance, especially as regard the nose and mouth, to our friend Uk himself, and might very well have been the bust of

a remote ancestor of his, say some fifty or sixty generations back.

I tried gentle persiflage at first, in the endeavour to persuade the Indians out of this deplorable determination to quit work at once, for had they gone we should have found ourselves marooned in the middle of the bush, two days from anywhere, with no one to take out our baggage, which, even after Gruning's departure, accompanied by his alcohol-driven fan and arsenal of guns and ammunition, not to mention the vast load of canned goods which we had consumed, still amounted to fair loads for eight or ten Indians, as we had to carry with us fourteen paper casts of stelæ which, owing to the heavy rain, had not dried in time to accompany the stelæ, on the slide which had conveyed Gruning to Punta Gorda.

I pointed out to them that the head of the god could not have spoken to Uk in Kekchi, as that dialect of Maya had not been developed at the time it was made, but they said this did not matter, as, of course, a god could speak any language. Next I suggested that this was no god, but an ancestor of Uk's—as they might see for themselves by comparing the two faces—who, displeased with his degenerate descendant, merely wanted to get him into trouble, and lose them all a good job.

To this ingenious explanation, however, they merely presented an impervious wall of silence, the Indian's most efficient weapon when he adopts the rôle of a passive resister.

At last I was driven to my last card, and pretended to be very angry.

"Very well," I said, "go if you want to, fools and cowards that you are, to be humbugged out of a good job by an old idiot like Uk; but, if you go, not one of

you shall receive a single day's wages for the work you have already done, and when I get to Punta Gorda I will see that Uk goes to gaol for not fulfilling his contract to work up to the end of the week."

This seemed to touch the spot as nothing else could do, and they drew off to consult amongst themselves, ultimately returning and all signifying their willingness to finish their contract.

Upon this I hustled them off to their several jobs, putting Uk and another old croaker to work on the burial-mound from which the head came.

On thinking matters over, afterwards, I came to a pretty correct estimate as to what had actually happened. There could be no doubt whatever but that the Indians when they first came to interview me were badly scared, and had made up their minds, at all hazards, not to return to work, for Uk, probably the pluckiest of the lot, was obviously jumpy, and his complexion had assumed the dirty grey colour always the index of emotion suppressed in the Indian. Moreover, the lad we knew as "Pot-belly," one of the most cowardly of the crowd, and not possessed of the intelligence of a hook-worm, was obviously so trembly at the knees that he could hardly stand up, while the tears, streaming down over his cheeks, were ploughing channels through the grime of his face.

My own impression was that Uk had, as he stated, dug up the head on the previous day, and made up his mind to appropriate it for himself, no doubt with the idea of being able to sell it later to some wandering archæologist or curio collector, and not to tell us anything about the matter. His conscience, as represented by a lively fear of detection and punishment, no doubt troubled him somewhat in the night, especially when he remembered

that he might be dealing with the head of one of the gods of his ancestors. Then came the earthquake, which must fairly have put the lid on, as far as Uk was concerned, and at the same time prepared the soil in the superstitious and credulous minds of the other Indians for any kind of supernatural tale.

The burial-mound from which this head came was one of the most interesting excavated by us at the ruins. It was situated about a quarter of a mile from the main plaza, and formed one of a group of small mounds and plazas surrounding an immense wild cotton-tree, which, old as it was, was yet probably many centuries younger than those who rested in the burial-mounds scattered around it. As shown in the illustration, eight men with their arms outstretched were required to cover one side of it, and, had it been tunnelled through, three flivvers abreast could very well have passed through the opening. Our Nicaraguans—bushmen and mahogany-hunters all their lives—who were undoubtedly experts in all that pertained to forest-lore, though sad wash-outs when it came to wielding a pick and shovel, admitted that it was the largest tree they had ever seen in all their experience of the bush. About 80 ft. from the ground, just where the first branches appeared, the great stem had been snapped off like a carrot, by some mighty tempest, which occurred probably long before I was born, for not a trace of the great top was to be seen upon the ground ; it had completely disintegrated, and become incorporated with the vegetal mould which formed a soft and uniform carpet over the whole forest floor. Next the tree were two pyramids, faced with stone. The larger of these was about 12 ft. high, and almost perpendicular, with a flat, nearly level, summit. Mounds of this description are nearly always " house-mounds," that is, they are merely

substructures upon which the Maya of the better classes erected their thatched wooden houses. They look tempting for excavation, and the neophyte in Maya archæology is nearly always taken in by them, and after expending weeks of labour, and many dollars, in driving a cutting through their centres, removing gigantic masses of limestone in the process, he finds himself the richer in the end by a large collection of perfectly useless sherds of common domestic pottery, and a few fragments of obsidian knives and flint chips, which have been accidentally included in the soil used to fill in the interstices between the rocks of which the mound was constructed. He acquires, however, a useful piece of experience which will warn him off this kind of mound in future. I gave the top of this great truncated pyramid a casual glance, and, muttering to myself, "house-mound," nearly left it, when there caught my eye three little subsidiary mounds, very modest and unassuming, perhaps 18 ins. high, and each measuring about 12 ft. by 8 ft., perched at two edges of the platform. This was unusual, and I determined next day to send a couple of men down to excavate all three of them—a procedure which would not occupy more than a few hours in the morning. On excavating in the first of these, at a depth of about 18 ins., fragments of obsidian knives and rather nicely painted potsherds began to appear, next two obsidian cores and a couple of perfect knives were found, together with the bones of some good-sized bird, probably a corassow, and those of a deer. Near these were uncovered a few human remains, consisting of fragments of the long bones, and some teeth, and, accompanying them, a broken javelin-head, covered with a white patina, the stemmed flint-head of an arrow, or small javelin, two fragments of broken jadeite beads, and two perfect obsidian cores. Most

interesting of all, however, was a small, beautifully moulded pottery head, $1\frac{1}{2}$ ins. in length, with regular features, wide-open eyes, rather flattened nose, and large, prominent mouth, and adorned with no ornaments except a plain fillet across the forehead. What rendered this little mask doubly interesting to me was the fact that it was precisely similar to some of those we had discovered at Lubaantun, the ruins on the Columbia branch of the Rio Grande, in British Honduras, where we worked for nearly two years.

The ruins of Lubaantun are distant, as the crow flies, probably not more than 25 miles from Chumuchà, though, travelling by the only route open, the journey takes not less than three days in fine weather, and a good deal more in the rainy season. We found there great pyramids, terraces, and substructures, all faced with beautifully cut stone, together with innumerable small clay figurines of men and women of all classes, from the priest, in his elaborately decorated ceremonial robes, and the noble in his jewel-covered head-dress, *maxli*, and sandals, to the labourer, in his breech clout and apron. We saw, perpetuated in clay, all the innumerable forms of dress and coiffeur in vogue amongst the ladies, and women of the lower classes. But in addition to these we found, modelled in clay, with the utmost fidelity and wonderful artistic skill, scenes from the daily life of the people: a woman carrying and suckling her baby, another carrying a plate of cakes, a hunter giving the *coup de grâce* to a deer with his flint knife, a gorgeously dressed noble being borne along in his hammock by high-hatted attendants, warriors in vizor-like helmets, who might have stepped out of the Middle Ages, and many others. Not a single stela, however, was found at Lubaantun, and, except on stylistic grounds, it was

impossible to date the city itself, or the objects found within it, while at Chumuchà, owing to the great number of stelæ found, the period during which the site was occupied in the Old Empire could be determined with great exactitude, and it was naturally of the utmost importance to be able to show that these two places were contemporaneous, and that free communication took place between them during the early centuries of the Christian era.

Some of the small clay figurines, found later at Chumuchà, were actually identical with Lubaantun types, and there can be little doubt but that they were manufactured in the same pottery moulds as those found at the latter, and probably carried from one city to the other as trade pieces. But, if Lubaantun supplied Chumuchà with pottery figurines, it seems not improbable that a trade took place in painted and decorated pottery in the opposite direction, for, whereas in Lubaantun fragments of the beautiful thin, porcelain-like Maya pottery—painted in red, yellow, black, blue, green, and white, and decorated with human and animal figures, hieroglyphics, and geometrical devices, often sculptured in low relief in addition to being painted—are extremely uncommon, in Chumuchà, as will be mentioned later, great quantities of fragments of this ware were found in caves which had probably been used by the ancient inhabitants as rubbish-heaps. It may be that the heavy, yellow clay around Chumuchà was especially well adapted for the manufacture of this class of ware, whereas the lighter earth of Lubaantun was found more suitable for the moulding of figurines.

Painted and decorated pottery is found widely distributed throughout the Maya area, but it is of extremely rare occurrence at any one site, and we know from Landa,

and other writers on the Maya and their customs at the time of the Conquest, that it was greatly prized by them, was held almost exclusively in the hands of the upper classes, and presented by one noble to another at feasts and other celebrations. In fact, with jade and jadeite ornaments, it, like the Rolls-Royce and the diamond tiara, constituted the badge of plutocracy, and distinguished the man of wealth from his poorer brother.

Now, Chumuchà was, undoubtedly, what we should term a provincial site, and it is inconceivable that it should have produced superior artistic talent in the moulding, painting, and decorating of pottery than such great and important cities as Tikal, Copan, and Palenque. We must look for some further reason for the great profusion of this class of pottery found here, as compared with that found at other much larger and more important cities. This is, I think, supplied, as already remarked, by the peculiar nature of the soil—thick, yellow, sticky material, almost impervious to water, and not unlike London clay. Chumuchà, in fact, though a provincial city, could fill a brisk demand amongst its wealthier neighbours for a luxury product, in the manufacture of which it had a practical monopoly, and on which it must have flourished exceedingly. It was, in fact, the Sevres or the Coalport of the New World, at a time when the Romans were introducing our own barbaric British ancestors to the beautiful objects of classical art.

Unfortunately, very little is known of the ceramic art amongst the ancient Maya, and practically nothing of the distribution of the various types manufactured. Articles so extraordinarily characteristic as the Lubaantun mould-made figurines, and the painted and decorated

ware of Chumuchà, are impossible to mistake, and easy to recognise at any distance from their original provenance. I have a beautifully painted human head, with an elaborate head-dress, from a potsherd, found more than 120 miles north of Chumuchà, which is so like one found by us on this expedition that one cannot resist the conclusion that they are the work of the same artist, for it seems impossible that any two separate paintings on pottery should so closely resemble each other in every detail of technique. I also possess a small figurine, from Naranjo, precisely similar to those found at Labaantun. The time is coming when Maya scholars will be able, infallibly, to date any unusual piece of Maya pottery, within a few years, to indicate its place of origin within a few miles, and even to recognise objects as coming from the hands of some celebrated master in the art of carving in jade, or painting on pottery, just as the expert of to-day recognises the work of Grinling Gibbons, Benvenuto Cellini, Rembrandt, or Rubens.

The second of these small burial-mounds on the summit of the pyramid was situated within a few yards of the first. It also was built of irregular blocks of limestone and earth. At a depth of 2 ft., on the north side of the mound, a human skeleton was exposed which had been buried lying on its back, in the fully extended position. It was evidently that of a young girl, probably not more than sixteen years of age, as the head and great trochanter of the femur had not as yet been joined to the shaft of the bone by osseous tissue, but only by cartilage. The skull was very thin, and it was with great difficulty that most of the fragments were recovered, though otherwise it was in a fair state of preservation. Compression, during infancy, had evidently been practised in the frontal region, to produce that flattening backwards

of the forehead, and elongation of the skull, so popular amongst some branches of the Maya of both the Old and New Empires.

With the bones, and scattered about indiscriminately above and on either side of them, were found the following objects: (1) Six obsidian knives; (2) The bones of some animal, probably a deer; (3) Fragments of a nicely painted pottery vessel; (4) A small tubular shell bead, and two small circular objects of the same material, perforated in the centre, one plain, the other with an incised device upon it, made by a hollow drill. These were probably small *orejoras*, or earplugs; (5) A small clay head, evidently that of a female, as the hair was swept back on each side from a central parting in two flat bandeaux, which passed behind the circular earplugs worn in each ear. Above the hair was a semi-circular head-dress, something like that worn by French fisher-girls. There can be little doubt but that this interment was that of a young girl, probably of the working class, with her few small possessions, and a little food offering, to assist her on the long journey to the next world. It may seem curious to find obsidian knives buried with a girl, but the small obsidian blade must have been to the Maya woman what the scissors are to her modern sister, while to the Maya man it corresponded to the pocket-knife of to-day.

Obsidian must have been one of the commonest, and at the same time one of the most useful materials employed by the Maya in the manufacture of their tools and weapons, and it is found in great profusion at Chumuchà, in the form of cores, knives, lancets, scrapers, eccentrically shaped objects, etc., while immense quantities of fragments of knives are found in rubbish-heaps, and scattered about the ground in the neighbourhood of the

ruins. The source of their supply was probably Guatemala, where, within 150 miles, occurs a great and practically inexhaustible vein of the material. It was doubtless imported in the form of small and medium-sized cores, for the manufacture of knives and other objects, as none of the immense cores and great knives, 6 to 12 ins. in length, so common in Mexico, are found here. The small core would be easy of transport, and would supply the small knife, so universally used, whereas the large core would be difficult to transport, and the large knives, while more valuable, and far more difficult to manufacture, would not be adapted to every-day use, and, unlike the small knife, would be a serious loss when blunted or broken.

In the centre of the mound, at a depth of 1 ft. beneath the surface, was found the remarkable limestone mask already referred to. Over the forehead are five shallow, circular depressions, about $\frac{3}{4}$ in. in diameter, cut in the stone. These, at one time, evidently contained insets of jadeite, shell, or mother-of-pearl, but, though the most exhaustive search was made in the vicinity of the head, not a single one of these could be found, and it is, of course, possible that they may have been filled with coloured gums, or some other perishable material. The ears are bored for the insertion of earrings, and four other perforations have been made, two at the level of the corners of the mouth, and two through the chin, for the suspension of ornaments of some description. Four holes have also been bored through the head, behind the inset depressions, no doubt for the same purpose. It may be that these holes contained tassels of coloured cotton or feathers, both very favourite decorative objects amongst the Maya. The back of the mask is cut in the form of a rim, surrounding a square depression, which is perforated

by large holes in three places, probably for suspension of the mask over the face of an idol. At a depth of one foot, immediately beneath this mask, were found pieces of human long bones, with a few fragments of the skull, and the lower jaw, all very much decayed, and evidently belonging to an adult. Nothing accompanied these bones, except a few common potsherds, which were probably introduced accidentally in the earth, and a single Lubaantun style clay figurine head, very much defaced.

It is difficult to understand how this beautifully executed stone mask, which must have been an object of considerable value, could have found its way into the grave of an individual so poverty-stricken that his only other earthly possession appears to have been an exceedingly insignificant figurine head, and so little regarded that his friends did not even place with him the usual food offerings, to help him on the long journey he was about to undertake.

A third mound was opened, on the summit of the large structure, within a few yards of No. 2. It was almost identical in size, and, like the other two, was built of earth and blocks of stone. Near the centre, at a depth of about 18 ins. below the surface, was found a single human interment, the bones so badly decayed that only small fragments of the long bones could be recovered, from which it was impossible to tell either the age or sex of the individual. Scattered around the bones, above and on each side of them, apparently quite indiscriminately, were found: (1) Eight fragments of obsidian knives; (2) A number of potsherds, painted red, yellow, and black; (3) Part of a broken flint spear-head; (4) Parts of two small Lubaantun style clay figurines. One of these represented a man, with receding forehead, straight,

well-formed nose, and prominent-lipped mouth. The eyes, which were obliquely set, were closed as if in sleep. In the ears were the usual large round earplugs, from each of which depended a long tassel. On each side of the head, above the ears, there projected from the head-dress an immense wing-like object elaborately pleated, and probably made, in the original, of stiffened cotton. Another of these figurines represented the bust of a rather stout woman, her clasped hands held in her lap. The waist is decidedly constricted, though, in such a stout person, it was impossible to render it wasp-like.

The figurines of women found at Chumuchà all affected a tight-waisted dress, and, indeed, their whole costume might very well pass for that of ladies of the late Victorian era. The Maya of to-day all wear the *huipil*, a loose, sleeveless garment cut square and very open at the back, and reaching to the knees, below which shows the *pik*, or short skirt, descending nearly to the ankles. This costume suits their somewhat stumpy and sack-like figures admirably, and lends them a certain grace and dignity, a fact which they are, for the most part, sensible enough to realise thoroughly. The more progressive amongst them have, however, taken to the modern fashions of bobbed or shingled hair and short skirts, a change which, it appears to me, has detracted very much from their appearance, and, indeed, not infrequently causes them to resemble a peripatetic sack of potatoes more than anything else. Figures of women are never depicted on the monuments, and rarely in the codices, and one was always under the impression that the Maya ladies had worn the *huipil* and *pik* from time immemorial, and that with them fashions had undergone no change for two thousand years or so.

These Lubaantun style figurines, however, depict women in an immense variety of costume and head-dress, and it would appear that, even amongst the Maya, stability in feminine costume and headgear did not exist, and, moreover, that the ugly high-necked, tight-waisted dress, fitting close to the figure, so unsuitable for the climate, and so unbecoming to the squat Maya figure, was at one time the mode, at least amongst the upper classes.

We dug down to a depth of nearly 3 ft. beneath each of these little mounds, but found nothing excepting limestone blocks, beneath which we came upon masses of huge limestone boulders, many weighing over 100 pounds, evidently placed there to form the foundation of the pyramid. We had neither the time nor the labour at our disposal to remove these, and reach the bottom of the mound, as we were occupied at the same time in taking moulds and drawings of the stelæ, in exploring the neighbourhood of the ruins, and in excavating in the caves; but we could not help wondering whether this great pyramid may not be itself a burial-mound covering a stone-walled, flag-roofed chamber, in which it was customary to bury the members of the Maya nobility and higher priesthood, with their most cherished possessions. It seems almost incredible that these burials can belong to the Maya Old Empire, be contemporaneous with the stelæ, and date back from fifteen to eighteen centuries.

Bones, in this humid climate, and, in fact, all perishable materials, rapidly disintegrate, and many of these bones, particularly those of the girl, were in quite a good state of preservation, comparatively speaking, though they were by no means exceptionally favourably placed, for they were covered only by a thin layer of earth and stones.

On the whole we are, I think, justified in regarding these burials as belonging to a much later occupation of the city, probably in late New Empire days, one thousand years after the erection of the last stela. The limestone head and the figurines are, I think, undoubtedly of the Old Empire, but they may have been picked up by the later people, either lying on the surface of the ground—as so many figurines are found at Lubaantun—by the Indians, when cutting virgin forest for their corn plantations, or dug up in making excavations for post-holes, or *pibs* for cooking in.

It is no uncommon occurrence to find objects, undoubtedly belonging to the Old Empire, in what are unquestionably late New Empire graves, and doubtless the degenerate Maya of five or six centuries ago valued highly the art products of their more highly civilised ancestors, who preceded them in the land by a thousand years, or more, and regarded such objects as cherished possessions whenever found.

Wild Cane Cay is a little mangrove islet off the south coast of British Honduras, which had been filled in with reef stone by the Maya of the late New Empire, and converted into a burial-place. Here are found innumerable small objects, belonging not only to the Old and New Empire, but even to the Spanish occupation, such as glass beads, and fragments of glazed pottery, a sure indication that they were not of Maya origin, for neither the art of glass-making nor glazing pottery was known to this people.

I think, on the whole, it is probable that these burials date from a period not long before the Spanish Conquest, and that the people of that time knew nothing of those who, preceding them by over a thousand years, had erected the stelæ. It is not unreasonable to suppose that,

at the time the Maya deserted their Old Empire sites for the great trek northwards, many of the inhabitants must have been left behind, especially those of the poorer class, invalids, the very old and feeble, and all those not physically equipped to undertake a long march into the bush to a distant and little known land. That the priests and the educated class left, *en masse*, is practically certain, for no stelæ were erected at the old sites after the beginning of Bactun 10. Now the erection of stelæ at stated intervals constituted a highly important religious ceremony amongst the Maya, and, had there been anyone left with sufficient knowledge of the extremely complicated calendar system to carry it out, it is inconceivable that it should have been neglected. Those who remained were the poor and uneducated, whose religious education was confined to a knowledge of the prayers and incantations used at such ceremonies as the felling of bush for the *milpa*, the planting and harvesting of the corn, the erection of a new house, etc.

It is not impossible, therefore, that many of the old sites were occupied right up to the coming of the Spaniards, by descendants of those people left behind at the great Maya exodus to the new land, and that the obviously late burials which we find, both at Chumuchà and Lubaantun, are theirs.

One last, curious little incident occurred in connection with the mask before its final removal from Chumuchà. It had been placed in my little tent, and a couple of mornings after its discovery two of the Kekchi Indians were working at the paper mould of a stela, within a couple of yards of the tent, when a slight rustling noise was heard within, probably caused by a large lizard running over the dry palm-leaf which carpeted the floor, for we encouraged these reptiles about the camp, as insect scavengers, and

they had got very tame. On hearing the unexpected noise, the Indians promptly jumped up from their work and took to their heels, with cries of "*Viene la cabeza*," "The head is coming," and it was some time before we could pacify them and get them back to work.

CHAPTER XIII

Uneasiness of all the animals of the forest on the night after the earthquake—Muddy and the tiger—Three small mounds opened, all probably substructures for houses—Mound opened at base of terraces, probably a kitchen-midden—Caves in the limestone formation, near the ancient bridge, used partly as burial-places, partly as rubbish-heaps, by the former inhabitants—Small cave beneath northern terrace—Difficulty in removing its contents—Division of the cave content into three layers—Discovery of a piece of rusted iron—Potsherds, and bones of animals, in upper two feet—Discovery of fragments of an elaborately decorated and painted censer—Prominent lips of faces, painted on pottery, cut on stone, and moulded in clay, found at Chumuchà—Bones found, probably belonging to the last period of occupancy, when the cave was used secondarily as a burial-place—Potsherds from the upper layer—Absence of *comales*.

On the night of the earthquake, we had a visit from most of the denizens of the Central American zoo. Just as I was going to bed, Clive-Smith shouted out from the opposite side of the plaza, where his bush-hut was located, to know, "What that barking was?" I explained that it was a bush-dog, probably not very far away, but impossible to get at, as the bark is so misleading in the bush at night that it seems to come from all round one. Soon, with an eldritch yowl, the bush-dog stopped his yapping. I was just going off to sleep when, from the trees overhead, came the chattering and squeaking of a flock of monkeys. These were not howlers, but common spider monkeys, which usually retire to bed early, and sleep till daybreak; and I could not help wondering what threatened danger had caused them to trek on a moonless night. From the direction in which the monkeys were headed came the barking of an old baboon, and next the curious raucous notes of some

night-bird, something like those of the "Who-a-you," but much louder and hoarser. I have never seen this bird, though I have often heard it at nights, and the natives assert that it is a carrion eater, and follows in the track of a hunting puma or jaguar, which may or may not be so.

Shortly after this, there stampeded through the bush, close to Muddy's leaf shack, which was situated about fifty yards from the plaza, a drove of peccari, or little wild hogs. They were evidently excited and angry, for they were grunting and grinding their teeth as they fled through the bush. Following closely on the noise made by the stampeding peccari came some heavy animal, judging by the noise it made on the dry leaves covering the forest floor. On arriving opposite the little roof of palm-leaf, under which Muddy lay in his hammock, this beast stopped dead, and sniffed loudly in an unpleasantly suggestive way. Muddy shouted: "Mr. Smith, Mr. Smith, come here; there is a large animal in the bush." Without result, however, as Smith by this time was sound asleep.

Muddy was feeling far from comfortable, as he could hear the animal moving about every now and then, and it was, at least, so his imagination suggested, creeping close to his mosquito-net, his only protection against attack. Whenever he heard a movement he flashed his electric torch into the bush, in the direction from which it came, lifting the net for the purpose, and poking his arm out, but not emerging from the frail protection which it afforded. At each flash of the torch the movement ceased, only to be renewed almost immediately after it was withdrawn. This continued for some time, till at last the animal began to withdraw, slowly and with many pauses, and finally, greatly to Muddy's relief,

he could hear it no longer. Muddy was firmly convinced that it was a jaguar, or puma, which, following the drove of peccari, had been arrested by his scent, and stopped to investigate. My own opinion, however, is that it was much more probably a pole-cat, which cultivates this unpleasant habit of sniffing and scuffling along a carpet of dry leaves, making nearly as much noise as a much larger animal. The presence of a pole-cat, moreover, will cause other beasts to retire from his neighbourhood, and it has very little dread of man, while its insatiable curiosity will take it quite close up to a dwelling, as I found out in my encounter with the one at Flour Camp, as already related.

It was curious, however, that all the denizens of the bush seemed so uneasy and on the move on this particular night, and I wondered whether the earthquake in the preceding night had had anything to do with it.

Four other small mounds were excavated at the site, at points separated by considerable distances from each other.

The first of these was one of a group of three small, flat mounds, situated about half-way between the plaza and the nearest point to it on the Joventud River. It was almost round, approximately 30 ft. in diameter, and 4 ft. high. The whole of the central part of the mound was dug away, down to the ground-level. It was found to be composed exclusively of the yellowish clay of the surrounding soil, freely reinforced with large blocks of stone. No trace of human bones was found within it, and no artifacts of any kind, with the exception of small fragments of coarse pottery, such as would have been naturally taken up from the surface when the earth was collected for the construction of the mound.

The top of this mound was perfectly flat. The other

two mounds in this little group were almost exactly similar to the one described, both in size and shape, and it was considered useless to make any excavations in them. It is nearly certain that these little mounds were the substruction upon which were erected dwellings of wood, roofed with leaves, as great numbers of them were found all over the site; all were of approximately the same shape and construction, and none of them contained either human artifacts or any traces of human bones. It is possible that this small group, with another similar one on the opposite side of the plaza, may have been substructures supporting the houses of minor priests, or servants, connected with the service of the temples surrounding the plaza, as it seems unlikely that civilians should have been permitted to reside so near the sacred places.

The second mound formed one of a larger group, whose numbers, owing to the thickness of the bush in this situation, we had not time to ascertain accurately, situated in the neighbourhood of a small stream running into the Pusilhà River, on the opposite side of the plaza. It was irregularly circular in shape, 27 ft. in diameter, and 4 ft. high, and was built of earth, freely mixed with large blocks of stone, forming a very firm and lasting foundation, little affected by the heavy rainfall of the district, for the support of a wooden dwelling. It contained nothing whatever, with the exception of rough potsherds. It was flat upon the top, as were all those in the vicinity—many of them larger than the one excavated—which we examined.

The third mound was situated close to Joventud camp. It was a good deal larger than those already described, but in structure and appearance was almost identical, except that it was higher and contained a much larger

proportion of stones than the others. It was also, almost certainly, a substructure for the support of a dwelling-house, but a larger and more elaborate one, and, judging by its distance from the plaza, not intended for the occupancy of anyone connected with the service of the temples.

The fourth mound was situated near the bridge, on the south side of the Pusilhà River, at the base of the southern residential terrace. Here the interstices between a group of great limestone boulders had been filled in with earth and potsherds, in about equal proportions. The sherds, having been constantly exposed to water draining down from the terraces above, were so rotten as to be almost incorporated with the earth, and difficult to separate from it. The majority of them were of ordinary domestic ware, but a few sherds of painted pottery were found. Fragments of human bones were also found in one of the crevices, but so much decayed as to render it impossible to determine either the age or sex of the individual to which they belonged. It seems probable that, like the cave at the base of the northern residential terrace, presently to be described, these rocky crevices were used as depositories for rubbish by the ancient dwellers upon the terraces, and a more thorough examination may bring to light a number of interesting objects, though it can hardly be hoped that pottery vessels will be recovered in as good a state of preservation as they were in the cave, owing to the much less favourable conditions under which they were placed.

Caves. Great outcrops of limestone, sandstone, and conglomerate are common throughout the country round Chumuchà. The Mojo, the Joventud and the Pusilhà Rivers have cut their way through a limestone formation, and almost every few hundred yards tumble over falls of

limestone boulders, from a foot to 12 or 15 ft. in height, while the creeks which run into the Pusilhà have cut deep channels in the sandstone, through which they run to reach their destination.

Upon both the north and south side of the Pusilhà River, in the vicinity of the ancient Maya bridge, are ranges of low limestone hills, rising to a height of about 250 ft., the sides of which have been terraced by the erection of sloping walls of crude masonry, and the tops flattened, for the erection of the wooden buildings in which it is certain that the ancient inhabitants dwelt. Along the base of these terraces, in the sides of limestone cliffs which adjoin them to the south-west, and even in the floors of the terraces themselves, are found large numbers of limestone caves, some of them mere crevices in the rock, others of considerable extent. These caves seem to have been used partly as refuse-heaps for the deposition of rubbish, the more indestructible parts of which—as potsherds, flint and obsidian chips, broken stone implements, and weapons, fragments of rubbing-stones, etc.—may still be recovered, but partly also as burial-places, for human bones were found by us in no less than three of them, all in a fair state of preservation, and all near the surface of the soil covering the floor of the cave.

By far the most important cave examined, and one from which the most valuable information was obtained, was situated at the base of the limestone ridge, the sides of which had been terraced, and the summit flattened, on the north side of the ancient bridge. The limestone here forms a small but steep cliff, at the base of which are three caves. One runs downwards beneath the ridge, the second is a small cavity, shaped like a sentry-box, but much deeper, and the third, beginning as a little

roughly circular chamber, approximately 12 ft. in diameter, branches out to left and right into two subsidiary caverns, in the exploration of which the most important results were obtained. The sentry-box was soon explored, as there was only an inch or so of earth upon its floor, containing a few pieces of common domestic pottery.

The cave opening downwards beneath the mountain was approached through a narrow, dark, funnel-like hole. It was filled up with stones and earth, amongst which numerous potsherds were found—obviously introduced by human agency. The atmosphere of the cave was, it must be admitted, extremely musty and unpleasant, and there was practically no light but that of our gasoline lanterns. Our Indians took a strong dislike to this cave, and it was with the utmost difficulty that they could be got to work there at all, and then only under *force majeure*. They could not explain why they were scared, except that there was some evil influence in the cave; and yet in the third cave, where four of them worked for a week, with only the light of a gasoline lantern and several electric torches to assist them, they were quite happy and at ease, though to me there seemed little to choose between the two.

The sloping walls of rough stones, supporting the terraces above the cave, were literally covered with potsherds, for the most part of the common domestic variety, with obsidian chips and broken knives, both of which were to be found even on the surface of the soil; and it was obvious that the succeeding generations of Maya, who had lived in houses built upon the terraces, and upon the broad, flat top, had shot their rubbish down indiscriminately to the base of their stronghold, as being the least troublesome method of disposing of it. The floor of the little chamber, at the entrance to the third

cave, was composed of moderate-sized blocks of stone and earth, and the little diverticulum to the right was filled, almost to the roof, with the same material, amongst which we found, on superficial examination, great numbers of potsherds. It was obvious that these stones had been introduced by human agency, as many of them were water-worn pebbles.

We came to the conclusion that the cave must have been used as a kitchen-midden, or refuse mound, by the ancients, and determined at once to set about its thorough exploration. There was one curious fact which we noticed about the little antechamber to the cave, namely, that almost in the centre of its roof a large, round, funnel-like hole connected it with the upper air. It was difficult to determine whether this had been deliberately cut through the rock, to facilitate the shooting of rubbish into the cave beneath, or whether it was a natural formation, which had been taken advantage of by the terrace dwellers for this purpose.

Removing the earth and stones from the floor of the little passage on the right of the cave, was at the start an extremely tedious and difficult undertaking, as only one Indian could work at a time, owing to the lowness of the roof, and at first he had to lie upon his belly and pass the stones on to a man behind, who removed them from the cave. There was not sufficient sunlight for this procedure, so he had to work by the light of a gasoline lantern, placed close beside him, which, although it provided the necessary illumination, threw off also a good deal of superfluous heat at such close quarters. Fortunately, the atmosphere of the cave itself was several degrees cooler than that of the bush outside, and, as the work progressed, and the excavation deepened, the job became much easier, as more room was afforded to work in. We

began to get potsherds, and other objects out, from the start, and it soon became obvious that this cave had been used, as we had surmised, as a dumping-ground for rubbish by the former inhabitants.

In excavating, we divided the material on the cave floor, roughly, into three levels: the first from the surface to a depth of 2 ft., the second from 2 to 4 ft., and the third below 4 ft. One of the first objects found, right on the surface, was a triangular fragment of iron, almost rusted through, which looked as if it might have been broken from a spear- or javelin-head. This cooled our ardour considerably, for we had no intention of wasting our time in digging out the refuse-heap of a village of degenerate, post-Conquest Maya, who had probably retired to this remote fastness of the bush to escape their Spanish taskmasters, and whose most cherished possessions, much less the contents of their rubbish-heap, would not have been worth the cost of removal to the British Museum.

On closer examination, however, we came to the conclusion that this object was not a fragment of spear-head, but the point which had been broken from a machete, probably many years before, by some mahogany cutter grubbing amongst the stones on the cave floor in search of treasure. This supposition was later borne out by the fact that we discovered, in the neighbourhood of the river, several very ancient and decayed mahogany stumps, the logs from which had been floated away down the Pusilhà, very many years ago, or, more probably, got stuck on the river-banks during a high flood, there to rot slowly away to punk. Indeed, we heard rumours of an enterprising wood-cutter working here in the prehistoric past of mahogany, but, as he did not go on with the undertaking, it was presumably unprofitable, which, indeed,

is not to be wondered at, as, owing to its innumerable falls, the Pusilhà is about as unsuitable a river as it is possible to imagine for the getting out of logs.

In the upper two feet of the cave floor we found, mixed with the stones and earth, a great variety of objects, the vast majority of which were potsherds. In addition to these were the bones of large animals and birds, but not in such large quantities as one would expect, when one remembers that the deer, mountain cow, wild pig, wild turkey, and corassow must always have been fairly common in the forest, in the later New Empire days, which this topmost layer probably represents. There were four fragments of hand corn-grinding stones, made of the hard, porous, volcanic rock, known as esquipulas stone, which seems to have been used by the Maya, from the earliest to the latest times, in the manufacture of these stones, for which it is particularly well adapted. About a foot below the surface was found a small cache of the ubiquitous obsidian knives and cores, though, as most of them were in good condition, it is difficult to understand how they found their way into a rubbish-heap. A single knife, one could well understand, might have been lost, and thrown out with the refuse, but not six.

Two curious little implements of sandstone were brought to light, one shaped something like a boomerang, both of which had probably been used for sharpening stone and bone tools, as they showed distinct marks of having served this purpose. At a depth of about 2 ft., so that it might be considered to belong either to the 2 ft. or 4 ft. level, were found some of the fragments of a very fine incensario, such as were so extensively used by the Maya of the New Empire to burn *pom*—a sweet smelling incense made from the gum of the white acacia—in all their religious ceremonies. The manufacture of these

censers is still carried on by the Lacondones of the Rio de la Passion, one of the last remaining tribes which can trace back an unbroken descent to the ancient Maya, and in whose veins is no admixture of foreign blood. The head of the figure which decorated the outside of this censer, one hand, grasping a canoe-shaped object, the base, and some of the elaborate appliqué ornaments of the figure were all that we recovered. It had originally been painted a dark claret colour, over which a white slip was applied to the pupils of the eyes. The plain head-dress, coloured brown, fits tightly across the forehead, and is prolonged downwards over the ears in the form of flaps. From its centre depends a tassel, fixed in a round stud. The ear ornaments resemble nothing so closely as small dug-out canoes. Passing on each side of the neck are two bands, coloured yellow, which probably supported the breast-plate. The features are finely moulded, and the expression solemn, not to say austere. The nose is rather large, and of the Roman type, and the forehead is high, showing no trace of cranial deformation in youth, so prevalent amongst the Maya. The lips, especially the upper one, are extraordinarily and unnaturally prominent, exactly resembling the lips of the limestone mask already described, and of the heads painted on pottery, found later.

One cannot resist the conclusion that this abnormal prominence of the lips is due to artificial deformation, probably the actual presence of a labret or lip ornament, which does not show with the mouth half open, or to a thickening of the lips themselves, due to the constant wearing of such an ornament. That these prominent lips were prevalent amongst the ancient inhabitants of the city is, I think, a fair assumption from the fact that they are found moulded on an incensario, carved in stone, and

HEAD FROM INCENSE-BURNER FOUND IN CAVE

HIGH RELIEF POTTERY FROM CAVE (*See p.* 198)

painted on pottery. One cannot but regard this face as a portrait. It has no resemblance whatever to the grotesque faces of the feathered serpent, the long-nosed god, the diving god, or Tlaloc, the rain god, found on the incensarios of the New Empire, though it may have been the prototype of these, and represent the countenance of some stern but just god of human form. On the whole, however, I am inclined to regard it as a portrait of the owner.

Towards the bottom of this layer, and in close juxtaposition to the small cache of obsidians, were found some human bones, very much decayed, representing at least two individuals, but so fragmentary that it was impossible to say of what age or sex. It is possible that the obsidian objects may have accompanied these burials. These bones appear to belong to the last period of the use of the cave, and their depth below the surface is easily accounted for by the fact that a shallow grave is almost certain to have been excavated for their reception.

A rubbish-heap seems to be a peculiar place to employ for human burials, but it is possible that, at the time these interments were made, the cave had ceased to be used as a depository for refuse, and was used secondarily as a burial-place, just as the *chultunes*, or underground chambers, hollowed out in the limestone as storage places for water, to be used during the dry season by the old Maya, were not infrequently re-used by their degenerate descendants as burial-places. Fragments only of pottery were found in the upper layer of the earth covering the cave floor. The vast majority of these were common, thick, heavy, unpainted and unpolished household utensils, such as were used for cooking, eating, and the storage of water, beans, corn, etc. The commonest shapes found were the nearly spherical pot, in various sizes, sometimes with an

everted, and sometimes with a straight rim ; flat, saucer-like vessels, standing either on three legs or on a flat, circular base ; flower-pot shaped vases ; and small water *tinajas*. Not a single fragment was found which could be identified as belonging to a *comal*, or flat pottery disc for baking tortillas or corn-cakes, and yet this utensil must have been one of the most essential in every household, and subject to accident perhaps more frequently than any other clay object in use by the Maya. There were a good many pieces, however, of the painted red ware, so common amongst the New Empire Maya, and also a few sherds of vessels decorated in geometrical devices, with black, red, and yellow paint. These appear to have been chiefly bowls and shallow plates. The decoration found upon them is for the most part crude, though the devices are pleasing enough in themselves. The paint appears to have been carelessly applied, with little attention as to whether it overran the lines of the pattern or not. In addition to these there were a few small fragments of quite good polychrome pottery.

MAYA QUICHÉ. AN INCENSE-BURNER

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CHAPTER XIV

In no case were fragments found sufficient for the reconstruction of an entire polychrome vessel—Almost identical pieces found as far north as Rio Hondo, and as far west as Arenal—Two human faces, painted on pottery, probably in designs and colours used by Maya in painting their faces—Hieroglyphics upon the pottery; a possible date—Incomprehensible pictures—Methods employed by the Maya in decorating their pottery—Incised design on one of the most beautiful pieces of aboriginal American pottery ever found—We did not, at first, recognise the importance of the contents of the cave, from a stratigraphic point of view—Prevalence of black hornets in the cave—Their habits, and battles with spiders, upon which they live—The second cave beneath this terrace, still untouched.

The second layer of the cave content was very similar in composition to the upper layer, consisting of earth, blocks of limestone, and water-worn pebbles. In it were found a vast number of fragments of common domestic ware, together with a very considerable proportion of sherds of beautifully painted and decorated pottery; indeed, it was from this layer that most of the sherds of this type were recovered. In no case were the fragments found of entire pots, and in most cases but a single piece was unearthed; enough, however, appeared to demonstrate the beauty and fineness of the work, and give some idea as to the technique employed by the artist in decorating his ware in colours.

As was previously stated, not one-third part of the contents of the cave have been removed; indeed, it seems not improbable that the little recess from which most of the best pieces came is continued on, not only towards the entrance, but beneath the terrace, into the bowels of the earth, for water-worn pebbles, forming a sort of wall,

were found at its further end, which may well block up the passage into other chambers. There is, however, actually in sight twice as much material *in situ*, and undisturbed, as has already been removed, and it is not unreasonable to suppose that at least a considerable proportion of the missing fragments of the vases already brought to light may turn up when this has been fully explored, for, in consigning a broken vase or plate to the rubbish-heap, it is hardly likely that its fragments should have been very widely separated. Smaller pieces will, of course, be missing, but there is no reason why a sufficient number of the larger fragments should not be discovered to enable us to reconstruct many of the vessels. Two potsherds, upon each of which is depicted a human face, and part of the torso, in red, yellow, black, and white, are particularly noteworthy.

On the first sherd, the face is painted in a complicated red and black design, the red, separated from the black by white lines, evidently intended to represent the original colours and design used by the Maya to paint their faces on ceremonial occasions. The nose is straight and rather large, the forehead is high, and runs in a straight line with the bridge of the nose. The chin is full and prominent. In the ears are worn large earplugs, with dependent tassels. Along the chest, and down the back, are curious indented chains, which may represent strings of large beads. The lofty head-dress is decorated with plumes of feathers, studs, and tassels. Part of the red paint from the head-dress has worn off, and shows the method in which it had been applied.

The work is exquisitely done, and is so similar to a piece discovered near Arenal, some 150 miles north of Chumuchà, as to leave little doubt but that their original provenance is the same. Now, on the Arenal piece is

depicted, as we have seen, in the head-dress of one of the human figures, a circular, semi-mythological bird, with a long, curved beak and a curious ruff of feathers, whose appearance is so peculiarly characteristic that we have no difficulty in recognising another picture of it upon a vase found at San Antonio, near the mouth of the Rio Hondo, which forms the northern boundary between British Honduras and Mexico. Typical pieces of this ware can, then, be traced as far west as Arenal and as far north as the Rio Hondo, and I have no doubt that, in time, as our knowledge of Maya ceramics becomes extended, we shall be enabled to trace this very easily recognisable ware much further afield in every direction.

The second fragment shows only the front part of the face and a portion of the shoulders. The skin is painted red throughout, with the exception of the lips, which are yellow, and the eyes, which are white. The nose is hooked, and the forehead so receding as to indicate artificial deformation. The lips, as in the mask, and the face on the incensario already described, are enormous, the lower full and pendulous, protruding beyond the tip of the nose.

Nine pieces of pottery were found, upon which were inscribed hieroglyphics, for the most part outlined in black upon a yellow or red background. The majority of these appear to have been purely decorative, and to have had no calendaric significance, the only possible exception being one upon which was incised, before the pottery had dried, the day sign Ahau, with the numerical coefficient 2 placed above it. I am inclined to regard this also as merely decorative in motif, though it is not impossible that it refers to a Katun 2 Ahau, but, as a Katun 2 Ahau recurs every 260 years, it is impossible to fix such a date in the long count without further data.

The greater part of the rim of a large, shallow bowl was found, upon the inside of which were painted two curious devices, the colours used being red, yellow, and black. One of these appears to represent a woman lying on her back, her head and shoulders partly supported by an immense U-shaped head-dress, larger than herself. She is naked, with the exception of a girdle round the waist, the ends of which hang down in front. Her naked skin is painted black, and the scarf red. In front of her face is an animal mask, possibly meant to represent a tiger. The second of these designs is practically incomprehensible. It shows a long, thin human hand and arm, stretched out, in an unnatural attitude, over a long, thin leg and foot. The body to which they belong appears to be so distorted that it is impossible to definitely identify its parts. Except in the drawing of the hand and foot, this picture is most un-Maya in treatment, and I am unable to suggest what it is meant to represent.

One of the most pleasing of all the pieces found shows the head of the great feathered serpent, highly conventionalised, as is usual, but easily recognisable. The vessel is of a light yellow colour, nicely polished, and the design has been executed by carving on the surface after the pot had been baked. The essential outlines are in fairly high relief, the unessential ornamentation merely scratched in. Three methods were employed in the decoration of this pottery: first, painting and polishing; second, working in a design before baking, while the clay was still soft; and, lastly, incising the design on the pot after the pot had been baked. Any two of these methods may be used together on one pot.

What was perhaps the most artistic and beautiful object discovered at Chumuchà came from the middle layer of this cave. It was evidently a portion of a flat,

sculptured panel, which had, at one time, adorned the front of an incensario, as was obvious from the curious wing-like projection at the back, by which human and animal figures were attached to these vessels. It was made of rather coarse pottery, and measured approximately 5 ins. in each direction. It is impossible to tell the size of the original panel of which it formed a part, but this must have been, before it was broken, one of the finest works of American aboriginal art ever brought to light. The portion now under discussion was sculptured in rather high relief, and exhibits, below, a beautifully executed human head, with the same wide mouth and thick lips already noted in the paintings and stone and clay sculptures. Against the back of the head is held, by the uplifted left hand, a huge seed, from which spring, above, four gracefully curved stalks, each with a flower resembling a water-lily at its end, the whole forming a head-dress for the individual portrayed, who is possibly meant to represent the god of water and fertility. Above this head is a well-executed sculpture, representing the head and part of the body of the feathered serpent, possessing the curved fang, earplug, nose ornaments, and eye-scroll, with which he is always represented in Maya art.

The sculpture had originally been painted a bright red, but centuries of exposure to moist earth on the cave floor have now dulled the colour considerably. The technique employed on this sculpture is a combination of high relief and appliqué. The subjects depicted have first been modelled in rather high relief upon the flat clay surface of the plaque ; prominent parts, as the earplugs, nose ornaments, etc., have next been applied where desired, the whole has then been fired, and, lastly, painted red.

These incensarios appear to have been manufactured by the Maya of both the Old and New Empires, to have been used in the earliest times, as specimens from Quirigua, in Guatemala, indicate, and to be the sole objects connected with their ancient ritual which have survived centuries of slavery, intolerance, and persecution. They are made, and used, up to the present time by the Lacondon Indians of the Rio de la Passion, and by the Kekchi of the remoter parts of Guatemala and British Honduras, in the practice of their religion, which is a curious mixture of their old beliefs and Christianity. as taught them by the Fathers at the time of the Conquest. The few incensarios found in Old Empire cities are well modelled, and artistic in design. Those of the New Empire are decorated with extremely rococo figures of gods and men, done in the round, and covered with an infinity of appliqué decorations, in the form of feathers, studs, beads, earplugs, nose ornaments, tags, tassels, and pendants. Incensarios made after the Conquest underwent a slow but sure process of degeneration, till they reached a culminating point in the small crude, rough, hour-glass shaped pottery vessels fabricated by the Lacondon and the Kekchi, upon which the figure of the god is conventionally represented by two holes for the eyes, a slit for the mouth, and a triangular dab of clay for the nose. Amongst the incensarios which I have hitherto come across, however much they may differ in artistic merit and design, all are decorated externally by an anthropomorphic figure, and this is the single instance in which I have seen a sculptured, painted plaque take the place of this figure.

The lowest layer of the deposit upon the cave floor contained, like the upper two, vast quantities of potsherds of which the great majority were of common, unpainted,

unpolished domestic ware. Mixed with these were many pieces of vessels, somewhat indifferently painted, in red, yellow, and black, with geometrical devices, together with a few pieces of really good polychrome pottery. We found in this layer a considerable number of human bones, in a fair state of preservation, which, judging by their condition, could not have lain in their present resting-place for more than a century or two at the most. There can, I think, be but little doubt that this cave will afford an opportunity of studying intensively the Maya civilisation from the early Old Empire to the late New Empire. Wonderful work has been done along the lines of stratigraphy by archæologists working at the rubbish-heaps of the south-western states of the United States. So vivid a picture has been afforded by these means of the mode of life, habits, and customs of the cliff dwellers, from centuries before the coming of Europeans to comparatively recent times, that we are enabled to visualise their civilisation as vividly as we do that of any semi-civilised people of our own time. Unfortunately, no opportunity has heretofore been afforded us of studying the Maya civilisation thus intimately, for nothing in the form of a rubbish-heap, continuously in use throughout a number of centuries, has ever been discovered. Here, in this cave, however, if such a thing is in existence anywhere, we should find a record, written in terms of their indestructible refuse, of the Maya, from the earliest to the last days of their civilisation.

The earliest date recorded on the stelæ is 314 A.D., though the site was probably occupied long before that date. The latest date recorded is 472 A.D., though it is certain that the city was inhabited long after that date; indeed, there seems to be evidence in favour of an almost continuous occupancy, up to quite a recent period. Now,

the hills overlooking the Pusilhà River, both to the north and south, would at once commend themselves to people settling in the country for the first time, as the most desirable site for a city, and no doubt the artificial terracing of these hills was commenced at a very early date in the city's history. But the northern heights can hardly have been occupied very long before the extreme convenience, as a repository of rubbish, of this series of caves, situated at the very base of the terrace, would become apparent to the dwellers on the heights. The lowest layer of rubbish, with its great preponderance of rough domestic ware, may represent the earliest efforts of a young settlement, with their later gradual struggle upwards towards an ideal of beauty, slowly evolved, and greatly conventionalised by their peculiar religion, as the centuries passed.

The middle layer, with its rich harvest of beautifully painted and decorated potsherds, and its wonderful incised work on clay, corresponds possibly to the great period of this provincial site, possibly, judging by the artistic evolution noticeable also in the stelæ from about Katun 7 to Katun 10 of Bactun 9, that is from about 314 A.D. to 373 A.D. The topmost layer would correspond to the last period, when a process of dry rot seems to have set in throughout the city, and to those many centuries which elapsed from the erection of the last stela to the arrival of the Spanish conquerors.

When we first started excavation in the floor of this cave, we did not realise its possibilities from a stratigraphic point of view, and the objects from various depths were, it must be admitted, mixed indiscriminately. As soon, however, as we began to recognise its potential value as a record of Maya life throughout the ages, far more care was taken. As already stated, however, we did not remove more than one-third of the material available,

and possibly not one-tenth of what the cave may be shown later to contain, when exploration has been carried out more thoroughly in it.

One circumstance which made working in this cave very unpleasant was that it had been occupied by a colony of five or six large black hornets. Anyone who has once come in contact with them treats these pestilential insects with the greatest respect, for their sting is far more painful, and the results more serious and lasting, that that of any other insect I know in the middle American bush. A scorpion's sting is a mere joke compared to a hornet's, and not really much worse than that of an English wasp. The hornet, however, is in his way a gentleman ; he will never take the initiative in a quarrel ; if one passes him quietly, without any waving about of arms or futile endeavour to swat him with a palm-leaf, he will go on his way without attempting to molest one. Even when walking on the ground he is the very incarnation of malignant energy ; a uniform, iridescent, bluish-black colour all over, his long, transparent wings vibrate continuously, and he propels himself along the ground in a series of short, rapid jerks. Woe to the rash person who endeavours to swat him, for his passage through the air is more like that of a bullet than a living organism, and by the time the swatter has descended the hornet has got his sting buried in the nearest part of his assailant. Every morning on arriving for work we found these hornets at home in the cave, which I suppose they found a very convenient dwelling-place, on account of the shelter it afforded from the wet and the abundant supply of nesting material all around. The Indians entered cautiously, taking no notice of the insects, which soon departed, leaving us in possession for the day.

These hornets, as well as their much smaller relatives,

also bluish black in colour, appear to feed exclusively on spiders. In the north of the colony, where tarantulas are fairly plentiful, it is no uncommon occurrence to witness a duel to the death—always the spider's death, be it understood—between a black hornet and a tarantula. The tarantula, quick as he is, has no chance against the chain-lightning movement of the hornet, which swoops down, stings, and is away again before his adversary can even turn upwards to bite. The battle is soon over, the spider, poisoned by repeated stings, weakens and dies, and his carcase is carried off by the victor, presumably to be eaten at leisure. There were no tarantulas at Chumuchà, or, at any rate, we saw none, but very large ordinary spiders, perhaps 2 to 3 ins. long, abounded, and were encouraged by us when they took up their quarters in our tents and bush shacks, in the hope that they would keep down the mosquitoes, doctor-flies, and abominably irritating little black batlas-flies, which came out in swarms on hot, damp, windless afternoons. These poor spiders could put up no sort of a fight against either the large or small black hornet, and, once descried by the enemy, their fate was sealed.

It was rather a comical sight to watch the corpse of the spider being carried off by the hornet. Their invariable method was to seize the body firmly in their mandibles, and then to reverse. They never carried the titbit—which was often heavier than themselves—or shoved it, but, invariably walking backwards, hauled it along. These hornets seem to have no sense of smell. One afternoon I was watching one carrying off a dead spider, when something alarmed it, and it dropped its prey and rose in the air. In a few minutes, however, it returned and commenced to look for its property, but during its absence a leaf had fallen from a tree overhead and

covered the dead spider. It took the hornet three or four minutes to find the body again, and, though at times he was within an inch of it, he never seemed to realise the fact, but, quartering the ground with the utmost patience, and complete thoroughness, he at last came on what he was looking for, and made off with it.

The second cave, beneath this terrace, in which the Indians so strenuously objected to working, is practically untouched, so that at the base of this northern terraced height alone there is a vast amount of work to be done.

CHAPTER XV

A cave eight miles from camp—Clive-Smith visits it—Polychrome pot-sherds found there—Black, petrified human bones found in a hole in the cave—Cave in the floor of one of the terraces, containing a human jaw-bone, opened up by cave-in—Possibility of burials of the ruling class having taken place in caves and fissures, afterwards sealed up—Absence of tombs of rulers at most Maya cities—Possibility of stone substructures containing burial-chambers in their interiors—The terraces—Curious absence of stone buildings from Chumuchà—Copan, its nearest neighbour, rich in architectural remains—Group of cities to which Chumuchà belongs—In none of them is the Maya arch found—The formation of the terraces on both sides of the river—Residential, rather than agricultural, in purpose—Advantages of the terraces as dwelling-places—A vision of the terraces as they were when the city was occupied—Minanhà, a connecting link between the northern and southern Maya sites of the Chumuchà type.

A SECOND cave was reported by one of our Nicaraguans, who had been engaged in mahogany cutting in this neighbourhood during the previous year, and was probably as well acquainted with the surrounding country as anyone now alive. This cave, which was visited by Mr. Clive-Smith, was situated beside the Joventud River, near Laguna Camp, some nine miles above the terraces. The original finder brought us a number of sherds of fine painted pottery, which he stated that he had found just within the mouth of the cave ; so, although it was at such an inconvenient distance from our camp, I felt that it should be inspected.

The entrance to the cave was in a steep limestone ridge, but whether it had been terraced or occupied Clive-Smith had not an opportunity of ascertaining. From the mouth the cave or passage ran almost straight ahead, beneath the ridge, for perhaps 100 feet, being

high enough to admit of one standing upright in it with ease. The floor was covered partly with earth, partly with a stalagmitic crust formed by the dripping of lime-charged water from the roof. At one point was a small collection of water with a muddy bottom. On reaching the end of the cave, it branched out into a number of low, narrow passages, in order to traverse which it was necessary to go down on one's hands and knees. Clive-Smith's was merely a preliminary inspection, and he had no time for intensive exploration at this cave, as when he started he had no idea that the place was so far away and as he had no food with him, he was compelled to return to camp that night. Our time was so fully occupied later with the plaza, the cave already described, and the mound excavation, that we were never able to revisit this cave, but its thorough exploration is merely deferred till next field season, not abandoned.

Before leaving, Clive-Smith discovered, at one side of the cave, a narrow, well-like hole, which passed vertically downwards. Throwing the light of the electric torch down this, he noticed, lying on the bottom, something which looked like bones. Squeezing himself down the shaft, with considerable difficulty, he managed to retrieve these, together with a single small piece of incised yellow pottery. The bones proved to be some of the long bones of an adult man. They were almost black in colour, and nearly as heavy as if they had been made of stone. They had, in fact, undergone a process of petrifaction, and were to all intents and purposes stone. How they had obtained their black coloration it is impossible to say.

No attempt whatever had been made to bury these bones; they lay uncovered on the surface, and it was obvious that the corpse, or possibly the living man, to

whom they belonged had simply been tumbled down the hole and left there to decay. At the mouth of the cave, where our Nicaraguan reported that he had found the fragments of fine painted ware, Clive-Smith was unable to find a single piece of this type of pottery, though he discovered a number of the sherds of the common domestic variety.

Cave 3. A third cave was found, and examined by us, situated on the second tier of the terraced hill, on the southern side of the Pusilhà River, near the ancient bridge. This was, in reality, rather a long, narrow fissure in the limestone which formed the floor of the terrace than a cave. Part of the roof which covered the fissure had fallen in, leaving exposed a narrow opening, just wide enough to admit of one's descending it, if one were not too bulky. On the floor were found a few potsherds, and the half of a human lower jaw. The slit appears to be a natural cleft in the limestone, which was probably opened up by the ancient inhabitants in levelling the ground to make the terrace. The cavity thus brought to light was used as a burial-place, and, though the roof appears to be a natural formation, it seems probable that the large flat stones of which it is composed were placed there by human agency, for how otherwise could the human jaw-bone have found its way in ? On the same terrace, and close to this fissure, two long depressions were observed in the floor of the terrace, which suggested the caving in of the roofs of other similar cavities, lying beneath.

There was so much other important work to do, and so little time, and such poor labour for its accomplishment, that we were not able to explore this cave further ; moreover, it is an extremely difficult place to reach, and, owing to its narrowness at the bottom, excavation there

is almost impossible. The discovery of these fissures opened up to us, however, a very serious problem. Holes, small caves, and rock fissures exist everywhere throughout this limestone country, and if the former inhabitants were in the habit of using these as burial-places, and then sealing them up, what chance should we ever have of discovering them, covered up as they now were by half a foot of vegetal humus, till it was impossible to distinguish them from the floor of the surrounding bush ?

Now, next to the decipherment of the inscriptions and obtaining reliable stratigraphic records from rubbish-heaps, our main object was the discovery of the burial-places of the nobles, priests, and rulers, hundreds of whom must have been buried in the vicinity of the city during the centuries of its occupancy in Old Empire days. In all the caves we had examined human bones were found, and it is obvious that they had been used as burial-places, though probably not until a comparatively late period. The same curious absence of the burial-places of people of the ruling class is to be observed at all the great Maya cities, and one cannot help concluding, either that they were so well concealed as to elude the superficial search which is all that has been made for them as yet, or that the ancient Maya buried their notable people at some distance from their cities, and one of these cemeteries still awaits discovery.

It is our hope that some of the great stone-faced pyramids, on the summits of the terraced hills, may prove to be the burial-mounds of the great men of this dead civilisation, and if this should prove to be the case, and the bodies are found in stone chambers within these great structures, accompanied by many of their possessions, and by offerings to the gods, and such articles as

they might be supposed to require on their journey to the next world, some notable discoveries should be made during the next field season, when we hope to return to Chumuchà better equipped for intensive exploration than we were on this occasion.

The Terraces. In most Maya cities it is difficult to distinguish between the civil and religious centres of the town, or to tell which houses were occupied by the priests and servants of the temples and which by casiques and nobles, though the temples themselves, owing to their peculiar style of architecture, which seems to have been fairly uniform over a great part of the Maya area during the Old Empire, are always easily recognisable. At Palenque, Tikal, Uaxactun, Copan, and, in fact, at most of the major Maya cities at present known, the stone-vaulted chamber standing upon a stone-faced substructure is the architectural unit. The chambers vary in number and size, and the substructures in height, but in temples, palaces, and private dwellings these two structures are invariably combined.

At Chumuchà, on the contrary, not a single vaulted chamber was found by us, and there can be but little doubt that both temples and private residences were constructed of wood, and occupied the summits of the innumerable stone and earth substructures found throughout the site.

This is all the more extraordinary when we remember that the great city of Copan, Chumuchà's nearest contemporary neighbour, presents, in its acropolis, a vast aggregation of stone-vaulted chambers, built one upon the other, whose construction must have extended over several centuries at least. It is true that, compared with Copan and its magnificent works of art, Chumuchà must be regarded as a provincial town, yet it appears

remarkable, considering the high pitch of perfection to which the painter's, potter's, and sculptor's arts had been developed, that architecture should have been so completely neglected, notwithstanding the shining example afforded by Copan, a city with which the people of Chumuchà must have had free intercourse over a period of at least three centuries. Stone—sandstone, limestone, and conglomerate—suitable for building purposes was plentiful throughout the district, and so easily accessible as not even to require the labour of quarrying, which in many of the Maya cities, unacquainted as their inhabitants were with mechanical contrivances and metal tools, must have been no mean undertaking.

Chumuchà appears to belong to a group of cities extending from the Chetumal Bay, in Quintana Roo, Mexico in the north, to the Sarstoon River, which forms the boundary between British Honduras and Guatemala in the south. This group comprises Ichpaatun, the Bluff, Lubaantun, and others. In these cities, though at least two of them, namely Ichpaatun and Chumuchà, were occupied from an early period of the Old Empire, no stone-vaulted chambers are found, and it is apparent that only wooden buildings, which have naturally long since been resolved into vegetal mould, were in use, standing upon the tops of great truncated substructures, which were sometimes faced with cut stone, or merely rough blocks of stone, and sometimes built merely of earth and stone, heaped together without any attempt at facing with masonry.

On each bank of the Pusilhà River, close to the bridge presently to be described, and perhaps half a mile from the main plaza, are ranges of low, natural hills. Those on the south side of the river run along parallel with its bank for several miles, and reach a height of

approximately 250 feet; those on the north side of the river are shorter and lower. The hillsides facing the Pusilhà River, on the south, have been terraced by the erection of walls, constructed for the most part of crude, uncut blocks of stone, though in some cases the stones have been roughly trimmed. These terraces vary greatly in width. In some places they are quite narrow; in others they expand into large plazas and open spaces, capable of containing a considerable number of houses. It is only the upper slopes which are terraced, and these only on the side facing the river; the lower remain more or less in their natural condition. Upon the summit of this range has been constructed a system of quadrangular substructures, of varying size, the sides of which are faced with blocks of uncut stone. At the base of the range there are found, in places, great aggregations of potsherds, broken rubbing-stones, flint chips, and similar indestructible rubbish, and there can be but little doubt that these terraces were used, not for agricultural purposes, for which they are entirely unsuited, and which, owing to the practically unlimited quantity of good agricultural land in the vicinity, would have been entirely superfluous, but as sites for the erection of the wooden houses and buildings of the former inhabitants of the city.

The terraces and pyramids to the north, at the base of which the caves already described were found, are much less extensive than those to the south. The whole country is, at present, covered with thick virgin bush, and the short time at our disposal did not admit of our exploring these terraces thoroughly, so that it is impossible to tell, as yet, how far they extend along the river-bank —indeed, it will be necessary to make a thorough clearing of the whole area, by felling and burning the bush, before

an accurate idea can be gained of the actual extent of the site. These terraces must have formed an ideal situation for residences—high, cool, breezy, free from flies, and affording a magnificent view over the whole surrounding country, and they were everywhere close to the Pusilhà River, from which the people could obtain an excellent water-supply and unlimited quantities of *machaca* and other fish.

It was very pleasant, sometimes, in the afternoon when the heat in the plaza, and especially in the interior of the tent, became somewhat oppressive, to climb up the terraces, and, sitting on the top of one of the pyramids which crowned the summit, let the pleasant jasmine-scented breeze, which always seemed to blow here, play over one's heated body, and to enjoy the magnificent view over the surrounding hilly country. Stretched out before one was an unbroken vista, far as the eye could reach in every direction, of virgin bush, tinted in every conceivable shade of green, and untainted by any visible sign of man's presence. Then, one could not but try and visualise these slopes as they must have appeared fifteen centuries ago, picturesque wooden houses separated by gardens, each containing its fruit-trees and flowering shrubs, ascending tier by tier to the summit, crowned with the great stone-faced pyramids, supporting the houses of the nobles and principal people of that long-dead civilisation. The steep and busy streets, full of people going about their lawful occasions; gorgeously arrayed priests, in lofty, jewel-decorated, feather head-dresses and elaborate robes, carrying their pastoral staff, the ceremonial bar; nobles and caciques—their faces, painted in curious and intricate designs, almost hidden by great earplugs, and the animal-headed head-dresses covered by waving plumes of gorgeous feathers

denoting their rank—borne along, in curtained palanquins, by their retainers. Women, with clear olive skins, shining black hair hanging in pigtails down their backs, smiling brown eyes, and flashing teeth, beautiful and attractive from the most cultured point of view, in their snow-white, exquisitely embroidered *huipils* and *piks*. Men of the working classes, carrying their merchandise of fruit and vegetables, honey, pottery, copal, and corn, in *macapals* slung across their foreheads, to and from the market. Women of the lower classes, carrying their fat brown babies astride over the hip, or slung in a net across the back. Busy traffic constantly in progress across the bridge between the city's two divisions; dug-outs flashing about over the river, just beneath one, and, further off, the faint smoke of copal incense going up from the sacred plaza, with perhaps a faint echo of the drums and the priest's chants to the old gods. Then, suddenly, the vision fades, and one realises that this great vanished civilisation is represented to-day only by a handful of half-starved Indians, their nakedness hardly covered by a few patched rags of cheap cotton, at work on the burial-mounds, disinterring the remains of their great progenitors.

There are many points of resemblance between these terraces and those at the ruins of Minanhà, near Benque Viejo, in the Cayo district of British Honduras, discovered by Captain Joyce and myself last year. The main differences are that at Minanhà the terracing obviously had been constructed for agricultural purposes, and that, while at Chumuchà, as already mentioned, not a single Maya stone-vaulted building was found, at Minanhà a single room of this type was unearthed by us beneath a small mound, on top of one of the great pyramids.

I am, notwithstanding these differences, however, inclined to regard Minanhà as a connecting link between the northern groups of this type, at Chetumal Bay, and the Bluff, and the southern groups at Lubaantun and Chumuchà.

CHAPTER XVI

The bridge over the Pusilhà River—The Spillways—The only structure of its kind throughout the whole Maya area—Its wonderful durability—We cut down a tree, and rebridge the river again—I make the first crossing in fifteen centuries—We build a raft for the navigation of the Pusilhà River, and for photographing the bridge—Fish found in the Pusilhà—Excellent fishing—Methods of capturing fish employed by the Indians—Curious origin of a name—Indian hunters more successful than whites—Game found in the bush—Other foods abounding in the forest—Methods used by birds to protect and conceal their nests—Pests found at Chumuchà—The beef-worm, and its unpleasant habits—Method of treating them—Accident to Gruning—Gruning's unpleasant experience on the mahogany truck—Difficulty in getting the stelæ to Punta Gorda.

The Bridge. Undoubtedly the most remarkable structure throughout the whole site, and one, so far as I am aware, absolutely unique throughout the entire Maya area, is the bridge across the Pusilhà River. It is situated some half a mile in a straight line from the main plaza, and was obviously intended to connect the two main districts of the ancient city, the northern and southern residential terraces. The bridge consists of two abutments placed opposite each other, on the north and south banks of the river, with a spillway on the outer side of each, to carry off flood water. There must, originally, have been not one bridge, but three, one extending across the river, from the top of one abutment to the other, and one on each side of this, bridging the spillways.

The abutments are constructed of stone, and where they are in contact with the water are faced with very large blocks of this material, neatly fitted together. Each measures 75 ft. in length at the base, and 55 ft.

at the summit. The breadth of each, to the spillways, is 32 ft., and the height approximately 15 ft.

The spillways, curved channels running on the outer sides of the abutments, above and below which they open into the river, are lined throughout with neatly fitted blocks of limestone. The openings of each were 7 ft. above the river-level at the time of our visit, so that they would not come into operation till the river rose at least 7 ft. above its then level. The river, above the abutments, was approximately 20 yards wide, between them 10 yards, and below them it expanded into a small lake perhaps 80 yards across. The river between the abutments, during our visit, varied from 6 to 10 ft. in depth, but this is increased during flood time by 8 to 10 ft., and during a top-gallant flood by even more. The function of this bridge was obviously, as before remarked, to connect the northern and southern districts of the ancient city. In the dry season this would hardly have been necessary, for a people who used neither beasts of burden nor wheeled vehicles, as good fords exist both above and below the bridge, but in the rainy season, especially during high floods, these fords would have been quite impracticable, and even crossing in a dug-out would have been attended with a considerable amount of risk. At no other Maya city, as already stated, does such a structure as this exist, and this not because of the lack of need for one.

At Copan, one of the largest and most important sites throughout the whole Maya area, the Copan River runs through the ruins, but no vestige of the existence of an ancient bridge exists. At Lubaantun, a ruin of the same type as Chumuchà, the two citadels of the city are separated by a *barranca*, at the bottom of which runs a creek; and at Tikal, one of the most spectacular and

ancient of all the Maya cities, the various districts of the city are separated from each other by deep chasms; yet at neither of these places had any effort been made to construct bridges connecting the separated parts of the cities.

The construction of the bridge postulates a considerable amount of engineering skill on the part of the ancient Maya; moreover, their work was built to last, for, though the abutments were put up probably not less than fifteen centuries ago, they have suffered very little damage —indeed, with the exception of a few small pieces of the stone facings which have fallen into the river, they are very much the same as their builders left them, and the spillways are practically unaltered. Yet the whole structure has had to withstand the tremendous floods of the wet seasons for 1,500 years, when the river may rise 10 ft. in a night, and change from a gentle stream to a roaring torrent, down which come hurtling great tree-trunks, striking like battering rams of almost irresistible force on the up-stream surfaces of the abutments; but they have successfully resisted the shocks, and still nobly face the floods of successive rainy seasons, almost untouched. The floors of the original bridges were probably made of squared logs of sapote-wood, laid side by side in contact with each other. This wood, which is plentiful in the surrounding forest, is hard, tough, and almost everlasting; indeed, many of the lintels and carved beams cut from it by the Maya for use in their temples and palaces are still in excellent preservation, after periods varying from 800 to 1,800 years. Naturally, however, in the open and exposed to the weather, the bridge timbers would have disintegrated centuries ago. We felled a large Santa Maria tree, which grew on top of one of the abutments, and let it fall across the stream, bridging it again for the first time since

Beside the Ancient Bridge Abutments on a Raft; the First Vessel to navigate the Pusilhà River in Fifteen Centuries

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its ancient builders disappeared into that fog of mystery which engulfed the whole of the Old Empire somewhere about the sixth century of our era. I was the first to cross this new bridge, but I had to do it in a very undignified manner, astraddle the trunk, jerking myself on, inch by inch, with my hands, as the tree was both narrow and crooked. Long before I got across, I was sorry I had not sent one of the Indians over first, for the trunk was covered with wood-ants who bitterly resented my presence, and, taking advantage of my precarious position, ran up my trouser-legs and shirt-sleeves, and bit, and bit again, with impunity.

One would rather have expected to find fine roads, perhaps even paved causeways—like that joining Chichen-Itza with Cobà, in Yucatan, discovered by me three years ago—leading from the northern and southern residential terraces to the approaches to the bridge on each side. Nothing of the kind, however, was found by us, though of course they may have been hidden under the foot or so of vegetal humus which has accumulated over the entire forest floor since the bridge was last used.

I was very anxious to be the first person for fifteen centuries to navigate the Pusilhà River, and, with this object in view, told the Indians to look around carefully for a moderate-sized wild cotton, or any other light wood tree, not too far from the river-bank, from which to construct a dug-out for this purpose. Such a tree, unfortunately, could not be found, or, at any rate, so the Indians asserted, though I could not help thinking that this was partly due to the fact that they did not look forward to the scooping out of the dug-out, and its subsequent hauling through the bush to the river. If this were the case, they were disappointed, for, failing a dug-out, I had a raft built, a much more laborious

proceeding, as the logs of lightwood, chiefly gumbo-limbo and mojo, had to be felled, dragged through the bush to the river, and there lashed together in three tiers with liana, a wet and laborious procedure, involving much harder work than the construction of a dug-out. This raft proved an exceedingly clumsy craft; she simply refused to be propelled against even the gentle stream above and below the bridge with our home-made paddles. The only way to move her was by poling, and even this was rather like poling oneself along in a round washing-tub against the stream, while in the lagoon below the bridge, where the water was 20 to 30 ft. deep, the only method was to tie a strand of liana to a tree at the point one wished to arrive at, take the other end on board, and haul. Still, I felt a sense of exaltation at being the first to navigate this unknown river after the lapse of so many centuries, and the solid raft proved a much more satisfactory stand for a camera, in photographing the opening between the abutments, for which purpose it was necessary to be afloat, than would a small, cranky dugout.

Both the Joventud and the Pusilhà River were simply swarming with fish, mostly *machaca* and *tuber*. The former reaches 3 or 4 pounds, and, except for the enormous number of bones which it contains, is quite a good eating fish. The brutes are extraordinarily voracious, and, not having learnt caution from contact with human beings, are very easily caught. Between the abutments we did not find the fishing so good, but just above them, where the water was a good deal deeper and not so clear, one had only to throw in a hook baited with *pixbicaham*, the grape-like fruit of a certain liana, to get a nice basket of fish in half an hour. The small fry which swarmed around the edges of both streams were incredibly

Tree felled across Abutments of Bridge which was crossed first time in Fifteen Centuries

Rustic Bridge near Joventud Camp

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voracious, and at times made bathing unpleasant, unless one sat beneath a fall, for they gripped any little mole, or similar object, on the skin, under the impression that it was a tick, giving one a pretty sharp nip, and sometimes even drawing a drop of blood.

The Machaca Indians, who live along the banks of the Mojo River, are, like our friends the Indians of San Pedro Colombia (who worked for us last year at Lubaantun), a branch of the Kekchi Indians, and, like them, look to river fish to supplement their usual diet of straight corn-cake, beans, and chilli pepper. Here, the fish were so guileless that there was no difficulty in catching them with a hook baited with *pixbicaham*, but in the Mojo River they are not quite so unsophisticated, and there the Indians employ a home-made net, known as a *quaril-cham*, stretched across the river, which they leave in place all night, returning in the morning to collect the catch.

They also use the sap of a tree, known as *chalam*, to poison the water and temporarily paralyse the fish, which may then easily be caught, just as the San Pedro Colombia Indians use the red juice of a certain liana for the same purpose.

It is curious how little knowledge these Kekchi Indians possess, not only of the outside world—for, never entering it, that is only to be expected, and I don't suppose one in a hundred of them knows that a Great War shook the world ten years ago—but of the bush, even in their own immediate neighbourhood. The nearest Indian settlement to the ruins was a little village known by the curious name of Inchasones or " Swellings." On enquiring into the origin of this name, I was told that some years ago a party of Indians from Machaca migrated to this new site, which then, as now, formed the very last outpost of

human habitation. At the new home were a number of *chichem*, or poison-wood trees, the juice, and even the emanation from which, causes the skin to swell and inflame wherever it comes in contact with them. The Indians had, actually, never heard of this tree, as it did not grow in their own immediate territory, and in cutting bush to make their own plantations they, of course, felled a number of *chichem* trees, and suffered in consequence from tremendously swollen faces and hands, and, not recognising the cause, continued for some time to suffer from these *inchasones*; hence the name.

They catch a few crabs and shrimps in the river, but are decidedly lazy, and seldom go fishing, except on Sundays, when they look upon it as a sort of holiday. Whenever they stir abroad in the bush, they invariably carry a gun, and consequently get a good deal of game, such as antelope, wild pig, armadillo, gibnut, and puma, which is not bad eating, and considered a great delicacy by some of the natives. They are always on the look-out for game, and will spot a gibnut scuttling off, or a bush-hen on the ground, where a white man would pass by, see nothing, and complain that there wasn't a head of game in the country. Moreover, the white man is teeming with perspiration, pretty fully occupied in shielding himself from the attacks of doctor-flies and mosquitoes, and, after the first few miles, rather weary from the weight of a heavy sporting-rifle or shot-gun, whereas to the Indian the temperature is that to which he has always been accustomed, the flies he simply ignores, and his ancient section of gas-pipe, if not particularly reliable, is at least light to carry. All of which facts being taken into consideration, it is not wonderful that a white man, equipped with every modern contrivance for the slaughter of game, will return from the Central American

bush declaring that it is almost barren of life, while the Indian, if he can overcome his racial inertia to the extent of going out hunting, will almost invariably come home with the goods.

There is a good deal of food to be gathered in the bush, in addition to game, by those who know where to look for it. The palma real, cuhoon, or coroza, palms at the upper parts of their stems carry very nice white tender shoots, which, when boiled, are not unlike the white heart of a cabbage. Sapodillo and mammy-apples abound almost everywhere, and provide both food and drink. The breadnut, ground into powder, can be made into an excellent cake, and the cuhoon-nut, which is universal, can be eaten raw or boiled to extract its oil, which is probably, for cooking purposes, the best vegetable fat known.

Returning from the bridge one day, a bush-hen got up almost under my nose, and, feeling sure she had been sitting on her nest, I set to work to find it. But, though I had located the place from which she flew to within a few square yards, it took me fully half an hour to find the cleverly concealed nest, with its four beautiful, light-blue eggs about the size of a small hen's egg, so cleverly concealed was it beneath the root of a great tree. I often wondered how these birds, laying their eggs, as they always do, on the ground, managed to conceal them from lizards, night-walkers, snakes, and other egg-robbers, but now I understood. There abounds in the forest around Chumuchà a small palm-tree covered as to the trunk with innumerable long, slender, sharp thorns, for which one has to be constantly on the look-out when making one's way through the bush, and woe to the unwary hand which touches them, or leg which brushes them when riding, for the hard, brittle spines enter deeply into the flesh and

are very difficult to extract. I noticed several pigeons' nests, mere bundles of sticks, conspicuous as a pimple on one's nose, perched on these palms, not 6 ft. from the ground, yet a securer place it would have been impossible to find, as no living animal, unless gifted with flight, could possibly reach them, for the spine-studded stems were absolutely unclimbable. From the depredation of men they were, of course, not safe, but then it was many centuries since the ancestors of these pigeons had come in contact with man, and possibly the hereditary fear of him had to some extent died out.

Chumuchà is, on the whole, quite a comfortable place to live in, notwithstanding the fact that every kind of noxious insect seems to be represented—mosquitoes, ticks, red-bugs, sand-flies, jiggers, doctor-flies, horse-flies, and batlas-flies ; but only a very few of each. We found the large black hornets rather too plentiful for comfort, but, by carefully avoiding them, managed to escape being stung. One pest, however, abounds at the ruins as at no other place in Middle America that I know of, namely, the beef-worm. This pestilential creature, burrowing beneath the skin as a microscopic lava, gradually grows, feeding on the tissues of its host, till it becomes a large fat maggot, perhaps ¾ in. in length, whose body is girded by three rows of stiff hairs. But not content with quietly drawing its sustenance from its unwilling host, it is impelled, at certain times, usually in the early hours of the morning, to take vigorous exercise, by violently wriggling its body about in the nest of subcutaneous tissue which it has formed beneath the skin, with very painful results to the host. There are two methods of getting rid of this pest, both of which start by affixing a piece of sticking-plaster for about half an hour over the minute hole through which it breathes, when,

if the plaster fits tightly enough, the worm's oxygen supply is cut off and it dies, presumably of suffocation. Now, if the worm is very small, it may be left alone, and no further inconvenience is caused, as the tiny body is absorbed by the tissues. If, however, it has reached a moderate size, it must be squeezed out after its death; usually it comes out whole, like a small cork from a bottle, and the place heals nicely, but at times the worm, though dead, refuses to be squeezed out, squeeze one never so strenuously, in which case trouble is apt to supervene. I got eight of these pests in me on my first visit to Chumuchà, all of which were successfully dealt with. On the second expedition I got eight more, and two of these refused to be squeezed out after death, with the result that their decaying corpses formed the centre of unpleasant little abscesses, which I had to have opened on my return to Belize. Only a few days after our arrival at Chumuchà, Gruning went out one afternoon for a little tour of inspection along the trail passing due westward from the plaza, which led, as far as we were able to ascertain, over the Guatemala frontier, at a distance of about a couple of miles from the ruins. The weather had been very wet, and the little palm-trees, laid side by side, to form a corduroy road for the mahogany tractor, were covered with sticky wet mud and extremely slippery. Suddenly, Gruning's foot side-slipped on one of the greasy little palms, his ankle doubled under him, and down he came. He managed to hobble back to camp, where I found the foot, ankle, and lower part of the leg enormously swollen, with very distinct crepitus, indicating a broken bone somewhere, though, fortunately, the tibia, the main bone of the leg, was uninjured. I improvised a sort of box splint from a large tin biscuit-box, and, with the help of the first-aid equipment so generously supplied

the expedition by Messrs. Burroughs Wellcome, I put the injured limb up very comfortably. But it took many days for the swelling to abate, and during the rest of his stay Gruning was almost entirely confined to bed, though for two or three days before his departure—on the mahogany sled which took out for us the stelæ and moulds—he was able to hobble around camp a little on a pair of bush crutches, improvised by the ingenious Muddy.

He had a very unpleasant journey on the way from the ruins to Flour Camp, whence he got a dug-out, and was paddled down to Punta Gorda in comfort. The first part of the trip from the plaza to Joventud Camp was not so bad, as it was accomplished upon a sled, a contrivance not unlike an immense heavy sleigh on iron-shod wooden runners, towed by a caterpillar tractor. The road was covered with mud, fairly smooth, and all downhill, so the sled, with Gruning reclining upon it, ran along without any very severe jolting. At Joventud Camp, however, he had to change into a mahogany "truck," a heavy platform upon small, nearly solid wheels, this being the only form of conveyance which will stand being towed by the tractor through the awful roads, which consist merely of rides hewn out through the virgin bush, over rocks, stones, rivers, swamps, or whatever form of obstruction Nature happens to have dumped down along the route to be followed. These caterpillars and trucks are hardy little contrivances, and fulfil admirably the purpose for which they were built, namely, towing out mahogany logs from the place where they have been felled to the nearest waterway, but, for anything more sensitive than a mahogany log, travelling on them is unadulterated torture, as they do not possess even the faintest apology for springs. At every jolt over the steep boulder-strewn

hills, between Joventud and Flour Camp, Gruning and his mattress were shuttlecocked high in the air from the floor of the truck, Gruning sometimes landing on the mattress, at others, the mattress on Gruning. At last, however, the awful trip, which, though the distance covered was only twelve miles, lasted two days, was accomplished, and, sore and battered, with the splint shaken off his leg, which fortunately by this time was much better, he arrived at Flour Camp. Nine days were consumed by the tractor, and trailer carrying the stelæ, in reaching Punta Gorda. Once they ran out of food, and had to send a messenger on to Punta Gorda for supplies. The driver was a mere wreck, and the crew not much better when they got in, and, on asking the owner what he would charge for taking the remaining stelæ out next year, he promptly answered, "Not for 5,000 dollars," and, on thinking it over for a moment, amended this to, "Not for anything on earth."

CHAPTER XVII

Expedition to Chumuchà, on the whole very successful—Five stelæ brought out for the British Museum, on which are recorded three Initial Series dates—Casts of all the other stelæ taken—Difficulties in making paper moulds in the damp climate of Chumuchà—Method adopted by us of drying moulds—Large quantities of pottery brought out from the cave by the northern terraces, classified according to the level from which it came—Origin of the Maya—Chumuchà probably founded during the march of the Maya southward from the Peten region to Copan—Communication existing between Chumuchà and the neighbouring Maya cities—Work remaining to be done at the ruins during the next field season—The thorough exploration and excavation of Chumuchà may occupy a number of years—Importance of the site, and possible light which it may throw on the history of the Maya.

The expedition to Chumuchà must be regarded, on the whole, as an unqualified success, from an archæological point of view. We discovered in British Honduras an Old Empire Maya city, the only one of its kind known up to the present in the whole British Empire, with the exception, perhaps, of the single temple at Benque Viejo, in the Cayo District, where a solitary and doubtful Calendar Round date, in very poor preservation, is recorded. Of the 20 stelæ found, no less than 8 contained Initial Series dates, from the end of Katun 7 to Katun 15 of Bactun 9, thus recording the early history of the inhabitants of British Honduras between the second decade of the fourth to the quarter of the fifth century of our era, according to Spinden's correlation between the Maya and Christian calendars. Of the stelæ discovered, all that could be found of five were removed to the

British Museum. Of these five, three recorded Initial Series dates, namely :

9.7.0.0.0
9.8.0.0.0
9.14.0.0.0

Of all the other stelæ, paper casts were made. This procedure was attended with great difficulty, owing to the extraordinary dampness of the climate, which would not admit of the moulds drying on the stelæ, for, though our expedition took place in the middle of what should have been the dry season, hardly a day passed without rain, and never a night. The method of taking these moulds was as follows :

A special porous material was used, not unlike thick, white blotting paper. A few layers of this were hammered carefully while wet into the interstices of the figure, or inscription, to be moulded; this was done with a hard-bristled brush, and great care had to be taken, if a good mould was to be obtained, to follow every depression in the original, and to leave no part of the subjacent stone uncovered, through holes made in the paper. The mould was then covered with a layer of flour paste, and over this successive layers of paper, each covered with paste, applied, to the number of ten or twelve. The mould was next allowed to dry in the sun, then removed, and given a further sunning on both sides, for a couple of days.

Now, the trouble with us was that there was no sun. Every time moulds were put on all hands had to stand ready to cover them, at frequent intervals, with every available tarpaulin and mackintosh in our possession, to protect them from showers, and at night little houses of leaves had to be erected over them for the same reason. But, even under this treatment, it was no easy matter to

get good casts, as, after a time the paper, already soaked with water and paste, if undried by the sun, even though not re-wet by showers, began to develop green whiskers of mildew. At length, we hit upon the device of building a long, low shed of sticks, thatched with palm-leaves, down the centre of which was erected a platform of small palm stems. The moulds, as soon as they could be removed from the stelæ, though not nearly dry, were placed on this platform, and a fire lit beneath, and kept burning continuously day and night. This method proved fairly successful, and, though some of the moulds got blackened with smoke, this will not interfere with plaster casts being taken from them.

Plaster of Paris is undoubtedly the best material with which to make casts, but it is heavy, and very difficult of transport for long distances on mule-back in the bush, and in this damp climate very rapidly absorbs enough moisture from the air to make it useless for taking moulds. For subjects in very high relief, plaster of Paris is essential, but for the low relief stelæ, encountered at Chumuchà, paper will, I think, serve the purpose almost equally well.

In addition to obtaining these casts, and five original stelæ, we brought out an immense quantity of pottery from the cave beside the northern terraces. This is arranged in accordance with the depth at which it was encountered on the cave floor : three levels, the two foot, the four foot, and the six foot being recognised. This cave should yield, perhaps, the most valuable stratigraphic knowledge of the pottery, implements, and utensils of the Maya of the early Old Empire ever yet obtained.

The question naturally arises, on first contemplating this provincial city, with its many contradictory features, its wonderful inscriptions, and beautiful pottery side by

side with the crudest style of architecture, where did the inhabitants come from? When did they arrive? And why did they settle down quietly, for so many centuries, so far from all the other Old Empire Maya centres? It seems probable, in the light of recent discoveries, that the Maya originated from a branch of what is known as the Archaic civilisation, a race of highlanders who occupied the table-lands from Mexico to Peru some two to three thousand years before the Christian era. Some time in the first millennium B.C. a branch of this people reached the coast, in the neighbourhood of Vera Cruz, Mexico. From this point their descendants appear to have migrated south, as the earliest trace we find of them is at the city of Uaxactun, in the Peten district of Guatemala, where they erected monuments about the first century of our era, or towards the middle of the second half of Bactun 8, according to Maya chronology. From Uaxactun, the migration must have continued southwards, for about a century and a half later we find that they had founded the city of Copan. Now, Chumuchà, though not on the direct route from Uaxactun to Copan, was not far off it, and we must suppose that the migratory bands of Maya, in their southward journey, had no definite objective in view, and were, in fact, entirely unacquainted with the forest-covered uninhabited country through which they were journeying. What more likely, then, than that they should send out scouting parties in search of good sites for the formation of future settlements, and that one of these parties, arriving at Chumuchà, and finding all they were in search of—good corn-land, a plentiful water-supply, and an elevated site—should immediately settle down there, and form the nucleus of what was later to become the city of Chumuchà. The main body would pursue their march southward, bringing up finally in what

is now the Republic of Spanish Honduras, and there founding Copan, perhaps the greatest of all the Old Empire Maya cities.

That Chumuchà, notwithstanding its provincialism and its isolated situation, had extensive and widespread communications with the neighbouring Maya cities cannot for a moment be doubted. At Lubaantun, as already noted, clay figurines have been found which were probably turned out from the same mould as some of those found at Chumuchà. At Copan ornaments are found made from the same semi-translucent, green, crystalline stone as, at least, one from Chumuchà; moreover, the style of the hieroglyphics, Katun by Katun, is very similar in both. At Quirigua, Chumuchà's nearest neighbour to the south, we find the frog altar, and it may be that the unambitious little frog altars at Chumuchà were the prototype which inspired the much finer sculptured frog of Quirigua, though I am inclined to think that, perhaps, the frogs of Chumuchà belonged to a later period than the stelæ, and even to a later period than Quirigua.

With Naranjo and Benque Viejo, in the north, Chumuchà has many close points of affinity. The eccentrically shaped obsidian and flint objects are almost exactly identical in all three cities, and are found in the same situation, buried beneath the bases of the stelæ. With Naranjo there are two further strong points of resemblance, i.e., the pottery whistles in the form of figurines found at both, and the large stela F at Chumuchà, plain on one side, with a Calendar Round date on the other, and facing towards the plaza instead of towards the temple, the counterpart of which is found at Naranjo.

With Santa Rita and San Antonio, Chumuchà is linked up by the strong resemblance which exists in the

polychrome pottery from the three places. This is so marked as almost to lead one to believe that many of the pieces were not only products of the same place, but actually of the same artist.

A great deal remains to be done at Chumuchà in the way of exploration and excavation ; indeed, it may be said that, except in so far as the stelæ on the plaza are concerned, the site has been merely scratched as yet.

Next field season the stratigraphic excavations in the cave beneath the northern terraces must be continued, further exploration undertaken in the plaza, for lost fragments of stelæ, and a thorough exploration made of the northern and southern terraces, and excavations undertaken in the great stone-faced mounds on their summits. In addition to all this work around the present site, a systematic exploration of the neighbouring forest will have to be carried out, in order to ascertain the truth of various rumours to the effect that even more important sites, with stone-arched buildings, exist in the interior.

There is, in fact, an immense amount of work to be done, which will probably have to be extended over a number of years, but which should result in very important additions to our knowledge of the arts, manufactures, weapons, dress, and mode of life in general of the Maya of the Old Empire, perhaps one of the most interesting races who ever lived on the earth.

CHAPTER XVIII

We set out to explore the caves on Indian Creek—An auspicious start, soon checked—The little negro, and his *buccatora*—We arrive at Gracy Rock—A wet dry season—Primitive population of Gracy Rock—We visit the haunted cave, and find no traces of human habitation—A curious cave-dweller—One of Nature's tragedies—My poleman's idea of a joke—A river which rises thirty feet—Batty's cave, occupied from the earliest to the latest times—Relics of various occupations—Objects found in the cave—We excavate two burial-mounds of the late New Empire, with very disappointing results—We camp on a "sandy bay," and are visited during the night by a tapir—Kingfishers' nests along the banks—We capture a loggerhead turtle—Curious habits of the loggerhead—Its fierceness, and the only enemy it fears—Our loggerhead eats its way out of a gunny-sack—We start up Indian Creek; difficulty of the passage—An uncomfortable, tick-and-mosquito-infested camp—We explore a cave, and find peccari, jaguar, and alligator bones—We enter the dark cave—A ghastly and forbidding cavern—The light cave—Beautiful coloration of the roof—The loggerhead escapes—We return to Belize.

I HAD heard of the existence of some caves along the upper waters of the Indian Creek and Caves Creek, two of the affluents of the Sibun River, just south of Belize. Some of these caves were reported to contain ancient pottery, and those through which the rivers flowed were said to exhibit very wonderful cave scenery. As these creeks are situated at no great distance from Belize, I determined to investigate the rumour, so, on April 16th, Gruning, Clive-Smith, and myself started on our last trip into the interior. This bid fair to be exploration de luxe, as we set out from Belize in a large motor-car, with all our camping outfit, cooking utensils, photographic kit, and the usual arsenal carried by Clive-Smith, tied on the running-board, the back of the car, and the radiator—wherever, in fact, anything would fit, as the interior was

rather unpleasantly crowded with the chauffeur, Gruning, Clive-Smith, Muddy, Andres, myself, and an *ayudante*, whom the chauffeur insisted in bringing along in case of a break-down, and who had ultimately to be ejected, and given a precarious perch on top of a roll of bedding tied on behind the car. Early as it was, our start attracted a large crowd of loafers, which can always be relied upon to assemble in Belize for any sort of an occasion not involving work. The first part of our trip was, I felt, almost too delightful to last, as we bowled along over the open pine ridge, a splendid, hard, flat, sandy road beneath us, the sun shining brightly, and a delightfully cool breeze, laden with the scent of pines, tempering the heat of the open ridge. Soon, however, we came to a place where the water lay in a shallow pool upon the pine ridge, and, in endeavouring to dash through this, found ourselves suddenly halted, the car buried to the axles in a sort of shifting sand, which held the wheels in a grip of steel. We had to get out and unload all the paraphernalia, then, jacking up the wheels, we cut down a number of small pimento-trees which flourished in great numbers on the pine ridge, and made a sort of corduroy road for about fifty yards. Our efforts were rewarded with success, and soon we were again on our way. While halted at this swampy patch, I encountered one of the most curious insects I have ever come across. It was a long yellow worm, which had enclosed itself in a tubular roll of green leaf, from which it was able to project the greater part of its body at will. When I first observed the creature, it was gaily paddling its little house over the face of the water, projecting its head and body, and swinging them first to one side then to the other, for all the world like a paddle used on each side of a dug-out, in alternate strokes. On reaching land, it used exactly the same mode

of progression, and even climbed an almost perpendicular stem of grass.

Our objective was a place named Churchyard, on the Sibun River, where we hoped to be able to hire men and dug-outs to carry us to Indian Creek and Caves Creek. On reaching the little settlement on the river known as Butcher Burns—presumably because a butcher named Burns lived there in the remote past—now occupied by a single creole family, we were disappointed to learn that Churchyard was now entirely deserted, and that it would be impossible to obtain either a man or a dug-out there. Our only alternative appeared to be to push on higher up the river to a place called Gracy Rock, but much below Churchyard, as that was, so we were informed, the only place accessible to our car, where men and dug-outs would be available. Borrowing one of the numerous piccaninnies as a guide, we accordingly set out again on our travels. Our route now lay through a patch of scrubby bush, along a track made by a mahogany tractor in getting out logs during the previous season. Every hundred yards or so we came to a deep mud-hole, which had to be filled in with small boughs and sticks, over which, with the aid of a rope on which we all hauled, the car was, with much labour, induced to pass. On one occasion, while all seven of us were tugging for all we were worth, the rope suddenly gave way, and precipitated us in a row along the truck pass ; and on another occasion Clive-Smith, who was endeavouring to lever up a submerged axle, suddenly slipped, and was himself submerged in the all-pervasive mud, from which we freed him by the simple expedient of dragging him by the heels through a patch of nice dry bunch-grass. Here and there the road was so bad as to be almost entirely impassable, and we were compelled to cut a

fresh pass round the bad bit, through the bush. Our little black guide, who was standing on the running-board, suddenly jumped off, and shot ahead like a streak of lightning. I could not think what had got into him, till I saw him returning with a large *buccatora*, a species of fresh-water turtle, affectionately clasped to his heart, an ear to ear smile, like the keyboard of a piano, irradiating his black visage. On returning to his perch on the running-board, he stuck nobly to his prize, though the brute scored him down the chest pretty severely, now and then, with its long claws ; but a negro loves stewed *buccatora* better than fried chicken, and I do not think that any consideration on earth would have persuaded him to part with his find. As we approached Gracy Rock, the road got worse and worse, and when we were within a mile or so of the settlement the car stuck obstinately in a mud-hole and refused to budge, nor could our united efforts succeed in shifting it. It looked as though we were there for the night ; not a very inviting prospect, as the place was swampy, and the song of the mosquito was already being heard in the land, so I sent Muddy on to Gracy Rock to see if he could obtain assistance. Very shortly, he returned with the entire male population, together with some of the female heavyweights, and our united efforts succeeded in again getting the car under way ; but it was not till dark had fallen that we at last found ourselves at the first hut of the little settlement.

Though this was supposed to be the middle of the dry season, it had been raining intermittently for several hours, and had now set in with a persistency which boded ill for our trip. We made camp under one of the soggy, damp bush-houses, and listened all night to the monotonous patter of the rain on the already saturated

roof. Next morning, the view from our front door was by no means reassuring ; the rain was still coming down in torrents. Around us were six little natural bush-covered mountains, perhaps three to four hundred feet in height, great masses of limestone, arising straight out of the flat plain, around which were swirling wreaths of white mist, for all the world like smoke from incense, being offered in great incensarios to the gods of the mountains. Soon the entire population of the place, men, women, and children, turned out to inspect us. They were all negroes of a very primitive type, with hardly a whole garment between the lot of them. These people are probably direct descendants of the original slaves of the Colony, who, living in this rather remote region, almost exclusively on the products of their little holdings, have come very little in contact with modern civilisation, and its many attendant evils and foolish ambitions. They are a simple, kindly, good-tempered, and extremely primitive people, strongly averse to anything like continuous or compulsory labour, but very clever in the cultivation of their own little holdings, where they raise bananas, mammy-apple, plantain, yam, sweet potato, etc. They are excellent river-men with either the pole or the paddle, and unexcelled as fishermen, for either turtle or fish, and as hunters. They find considerable difficulty in obtaining a market for their produce, as, possessing no means of transport except small dug-outs, Belize, the only available market, is often closed to them, owing to the fact that they have to cross a stretch of open sea between the mouth of the Sibun River and that city, frequently too rough for their small, cranky craft to navigate. The Government of British Honduras is now cutting a canal, which, by shortening the route, and enabling them to reach Belize

in any weather, will undoubtedly open up their means of communication with the capital, and give them a good market for their produce, at all times. Close contact with modern civilisation for primitive people, whatever their nationality, is, however, in my experience, a very mixed blessing, as it is usually its least desirable elements which appeal to them most. They are, partly on account of their nationality, partly from their isolation, as one would expect, extraordinarily superstitious. One tale relating to a mist-enshrouded mountain, rising almost perpendicularly from just in front of our front door, was related to us soon after our arrival.

It appeared that in the side of this mountain existed the entrance to a great cave, in which lived a ghost, who took the form of an immense black man, of super-human stature and strength, whose head was entirely devoid of hair. He was reputed to be the spirit of an old, escaped slave, whose uneasy soul was compelled to haunt the site of his former sufferings, till the resurrection. He had been seen by a number of people, and, though he occasionally stole fruit, vegetables, and stock, he never harmed people. One enormously fat, and very inadequately clothed, old negress, whose pendant black breasts and belly hung down in front in ungraceful and ill-concealed folds, and whose neck bulged in greasy pleats down her back, told us that she had with her own eyes seen this huge man emerging from his cave, soon after daybreak one morning, and that she had actually plucked up courage to address him, and ask him where he was going, but that, instead of answering, he had taken one look at her and fled away through the bush. The old lady's husband, who was amongst the audience, grunted, as he remarked to no one in particular at the end of the recital, " Hi, man, dem jumby him no fool."

As the rain continued without pause, we made up our minds to spend the day at Gracy Rock, as we were unwilling to get our stores and photographic outfit wet, which we should almost inevitably have done in transferring them from the shack to the dug-outs. There was no secret as to the location of the opening of the haunted cave, which was situated but little over a mile away, on the other side of the mountain. Getting a guide to show us the way, however, was quite another matter, as no man would go alone, and at last we were compelled to hire two men, each to reinforce the other's courage, on the strict understanding, however, that neither of them would enter the cave, but leave us at the mouth to do our own exploration.

Arrived at the entrance, our two guides squatted down on the rocks outside, and lit their pipes, quite resigned to a day's wait, with plentiful tobacco, assured wages, and no work, while we, having lit the gasoline lanterns, started to explore the depths of a damp, unpleasant-looking passage, some 12 ft. high by 15 ft. across, along the muddy floor of which ran a dirty, sluggish little stream, disappearing beneath the great boulders which partially blocked the mouth of the cave. The sides were composed of great limestone boulders, the interstices between which were filled with a dark grey sticky mud, evidently water borne. On this mud, which carried tracks almost as clearly as newly fallen snow, were the trails of innumerable gibnuts—a good-sized rodent, which makes excellent eating—and it looked as if this cave were the meeting-place of all the gibnuts in the district. Passing along the passage for about 150 ft., we arrived at a great mass of boulders, some 20 ft. high, beyond which the cave was continued at a higher level. The gibnut tracks all led up this incline in regular trails,

and it was evident that the upper chamber had been used by these animals for some purpose. The stream disappeared beneath this mass of boulders, which had evidently fallen, at some remote period, from the roof, blocking up the original passage, and opening up another at a higher level. The passage, as far as we explored it, was damp, dirty, and pitch dark, was probably flooded almost to the roof during the wet season, exhibited no signs of human occupation, not even a single potsherd, and had obviously never been used as a human habitation—consequently, we did not explore the upper level. On the boulders at the end of the cave I discovered an interesting little greyish-white insect about $\frac{1}{2}$ in. long, with immense, very slender antennæ over 8 ins. long. This curious little beast could jump like a flea, and was, no doubt, provided with these extraordinarily long and sensitive palpi, and remarkable jumping power, to fit it, in some inexplicable way, for its life passed in the pitch-dark, damp recesses of the cave.

On returning to the cave entrance, we came across a very curious little bird's nest, neatly attached, by a fibrous rope of thin liana, to a crevice in the stone roof. The entrance at the bottom of the nest led, by means of a narrow passage, to a small, softly lined cavity, in which we found five tiny fledglings, rapidly being devoured by a swarm of great black ants. The little mother bird had built her nest here with extraordinary ingenuity, in what appeared to be a situation absolutely safe from all egg robbers—snakes, *matlalas*, night-walkers, rats, and the like—laid her eggs, and hatched out her young successfully. Then the tragedy occurred, though, as to the exact nature of it, one is somewhat in the dark. Either she perished in some way—perhaps the victim of a hawk or snake—and the unfortunate fledglings, dying of

starvation, attracted the attention of the ubiquitous ant, whose scouts are everywhere, or else—a much more horrible thought—these voracious beasts discovered the nest for themselves, and the poor little mother, finding herself unable to cope with such a swarm of voracious and relentless little enemies, was actually driven from her nest, and her fledglings literally eaten alive. I do not think, however, that the latter hypothesis is true, as I have never seen ants attack live fledglings, even such tiny ones as those of the humming-bird. The true tale, however, we shall never know.

Next morning we succeeded in hiring three small dug-outs, with crews for each, and, the rain having stopped, set out on our journey up the Sibun River. I had never been able to make out the derivation of the name of this river, till two years ago, in examining some seventeenth century Spanish maps, in Seville, I found it named the Jabon, or soap river, though the origin of this name is also lost in the mists of the early Spanish occupation. At first we passed a number of small " banks," or settlements, each containing a bamboo house and a little clearing, situated upon both sides of the river. Here groups of piccaninnies and packs of half-savage hunting-dogs came out to greet us, often following our course with yelps and barkings along the river-bank. One of the first " banks " we passed was that of an old man who had hired us one of our dug-outs. He was really a wonderful old chap, and, though he was so ancient that the oldest inhabitants could not tell his age, he lived entirely alone, did his own cooking and mending, and cleared and tended his own little plantation. He had lost one leg and one eye in some long-forgotten disturbance, yet he fetched his own water from the river, up a slippery and almost perpendicular mudbank, which a man with two

legs would have found considerable difficulty in negotiating—a really surprising feat, when one witnessed it performed with a crutch and a stick. He stood on the bank, as we passed, waving his crutch, and shouting injunctions to us to bring his dug-out back safely, an ancient, grey-muzzled hound standing phlegmatically at his side, without even a bark.

My poleman's idea of humour was to shout to every unchaperoned woman we passed, at the innumerable little "banks," "Ony you wan didere?" That is, "Are you alone there?" The reply to this was generally, "Yes, sah"; which elicited as the next question, "You no me waah hire gal?" The lady, with an ear-wide grin, and an appreciative chuckle, generally answered, "No, sah," which brought forth an explosive, "Ha, Ha, Ha," and an "Oh, me tink you wah hire." Both parties invariably enjoyed the joke immensely, and I am not sure that, had it not been for our presence, the ladies' answer to the invitation to "hire" would not always have been in the negative.

About two hours from the start, we reached a "bank" behind which, we had been informed, there existed a well-known dry cavern in the side of a small hill, known as Batty's Cave. There were two bush-houses on the bank, with a small plantain walk—as a plantain plantation is called by the creoles—and coco and sweet-potato patch. The houses were fully 30 feet above the level of the Sibun River, and approached only by a zig-zag path up an extremely slippery and almost perpendicular clay bank, yet the creole family living in the houses told us that, during a top-gallant flood, the houses were sometimes completely swept away, and we saw the marks of the last flood extending half-way up the walls. This seemed almost incredible, as the present level of the house floor

was fully 30 ft. above the river-level, and the river would have to rise at least 35 ft. in order to sweep away even a flimsy bush-house, a rise which must inevitably flood the whole surrounding country. Yet we found evidences of such a tremendous rise in the trunks, brushwood, and such water-borne rubbish—even, in one case, half an old dug-out—hung up in the branches 20 to 25 ft. above our heads as we poled along beneath them.

Batty's Cave obtained its name from an old man named Batty, who took up his permanent residence there in the dim past. He was certainly a recluse, apparently not caring to mix at all with his neighbours, and probably an old-time slave. The creole family who live on the adjacent "bank" make use of this cave as a place of residence during the heavy floods, when they are driven from their own riverside residence, as, the opening to the cave being well up the hillside, it is free from all possibility of inundation. A youthful scion of this family was told off to guide us to the cave, the entrance to which was about a mile from the "bank." The first evidence we had of former occupation was in the form of a number of deep niches and recesses in the limestone bluff, whose mouths had been carefully walled in by the original Batty, as our guide informed us, to act as sties for his hogs. The entrance to the cave was some 15 to 20 ft. high, by 50 ft. wide. It led into a large, irregularly circular room, with a dry floor, and a number of overhanging ledges round the walls, of a suitable height to form seats. It formed, indeed, a very comfortable and convenient residence, and we asked our guide how it was that, using the cave every year as they did as a refuge, his family did not leave a little bush furniture there, a bed or two, and a few tables.

"Brok' 'am up fo' fi'wood, sah," he promptly answered.

A characteristic example of creole slipshoddedness!

We found that the cave extended behind the entrance hall as a broad, lofty passage, which ran straight into the hill for perhaps 100 ft., and then divided into two narrower passages, one running to the right, the other to the left. The floor of the cave was covered by a hard pavement of tough stalagmitic formation, above which, in the entrance chamber, was a very thin layer of cave-earth. On excavating in this earth, we found a few fragments of rough domestic pottery, and, on searching beneath the ledges at the side of the cave, we found considerable accumulations of this earth, in which were great numbers of fragments of the polished red ware so much used by the Maya of the late New Empire, and of the ordinary cooking and eating-pots. So numerous were the fragments, indeed, that one could not resist the conclusion that these recesses beneath the ledges had been used by the former inhabitants as convenient receptacles for their rubbish. We obtained a very fine specimen of a *metate* and *brazo*, used by the Maya from the earliest times to the present day for grinding their corn. They were found in the cave by the first-comers to the "bank," and handed down from family to family ever since. The present people, having obtained a little hand corn-grinding mill, had scrapped the old *metate*, and were only too glad to get a little real money for what they regarded as an obsolete, and rather barbarous, contrivance. The stone and its grinder were made of hard, porous, volcanic rock, which, providing, as it does, constant rugosities, never smoothed away by attrition, is particularly suitable for the purpose.

This cave is extraordinarily interesting, as being, perhaps, the only one in the Colony which has been more or less constantly occupied from the earliest times up to the present day. Dry, light, commodious, and within

easy reach of water, it must necessarily have appealed to the various dwellers in this region from the early years of the Christian era up to the twentieth century, as a desirable place of residence. Indeed, all of them have left relics behind, from the flint and obsidian chips, potsherds, and *metate* of the early Maya, to the gin and rum bottles of the late creole period. The floor of the cave, as before remarked, is covered with a not very thick stalagmitic layer, overlying, in its turn, a layer of cave-earth. The time at our disposal did not admit of our digging beneath this stalagmitic layer, but it would be extremely interesting to carry out this excavation, for, if pre-Maya, or palæolithic, remains are to be found anywhere, it would be in the deeper layers covering the floor of a rock shelter such as this, one particularly adapted by nature for human occupancy.

On a " bank " close to Batty's Cave we came across a number of small Indian mounds, varying from 2 to 6 ft. in height, and from 15 to 50 ft. in length. We obtained a couple of men, on the bank, to dig down two of these mounds. The larger of the two, which was situated actually on the river-bank, some 30 ft. above the water-level, was built of the sticky yellow clay of the district, with a number of stones scattered about through it. In the centre, about half-way between the surface and the base of the mound, was found a single human burial, the bones of which were in direct contact with the moist yellow clay, and so badly decayed that neither the age nor the sex of the person to whom they had belonged could be determined. With the burial were a single obsidian knife, a few flint chips, what may have been a portion of rather a crude, eccentrically shaped flint object, such as were found in such numbers at Chumuchà, a small, nearly circular hammer-stone of chert, showing percussion

marks all round its periphery, and a number of potsherds of red polished ware, and common domestic pottery. This mound was the largest of the group to which it belonged, and formed, presumably, the burial-place of the most important individual buried in this particular group. We were, consequently, greatly disappointed at the paucity and crudeness of the contents, and did not consider it worth while excavating any more mounds in this group. The second mound was smaller than the first, and formed one of a group standing back about quarter of a mile from the river-bank. It also was found to be composed of the clay of the district, mixed with stones. Fragments of human bones were found near its centre, accompanied only by flint chips and crude potsherds.

These mounds belonged, probably, to the latest Maya period, immediately preceding the Conquest, and no doubt Batty's Cave was occupied by their builders, during the rainy season, for the same reason that it is occupied to this day by the present creole family living near it.

Soon after leaving these mounds, we passed the mouth of Runaway Creek, a name taking one back to the old slave days in the Colony.

Five hours' walk from here, one comes to a small limestone hill, which rises up almost perpendicularly, right in the middle of the flat pine ridge. In the hill is a large cavern, known as Sally Pan Cave. This is one of the largest dry caves in the neighbourhood, and, as it contains within it a good-sized lagoon, from which a plentiful supply of fish is to be obtained, it is particularly suitable for human occupancy. In the early days of the Colony, the cave was reputed to be the hiding-place of a half mythological individual, known as Buckaroo Bass,

who robbed pitpans—the flat dug-outs, by which nearly all the transport of the Colony was done in former days—and small "banks," and mahogany-cutters' camps, along the Mopan River. A number of curious stone objects were found in this cave; hour-glass shaped, somewhat resembling the wooden rice huller of the Indians in appearance, they had possibly been used by the ancients as water-containers.

We camped about dusk, on a so-called "sandy bay," actually a promontory of loose sand, deposited by the river at one of its innumerable bends, and forming excellent camping places, with the single drawback that a heavy flood may come down in the night and swamp one's camp under four or five feet of water. It rained fairly heavily during the night, and in the morning we found the sand covered with the footprints of a very large tapir, or mountain cow, which had actually approached within a few yards of the tent. It had evidently made two visits, probably overcome by curiosity at the novel phenomenon of a flapping tent, for two sets of practically identical slots were very clearly to be distinguished, one quite fresh, and evidently made after the shower, the other partly obliterated by the rain. The animal evidently returned to satisfy its curiosity, and not its thirst, but its approach must have been extraordinarily silent for such a large animal, for it passed within a few feet of the men's shelter without disturbing them, and they are rather light sleepers.

As we made our slow and monotonous way up the stream—which, reinforced by the rain in the night, was now a good deal swifter than when we started—poling up shallow runs, paddling along deep stretches, I did not observe a single fly-catcher's nest, such as one so frequently sees on other rivers, hung precariously on the

slenderest twigs directly overhanging the stream, and quite safe from the cleverest egg-thief. This caused me a considerable amount of surprise—as this stream, being so little frequented, should, one would have thought, have provided an ideal nesting-place for these little birds—till I remembered the floods. With a thirty or forty foot rise, practically no place would be safe for them in which to build their nests—but how did they know this ?

I noticed, in a soft red sandstone bank which we passed, numbers of holes occupied by some of the innumerable kingfishers which flashed along the stream everywhere, gleaming like jewels in the sun. These were evidently nest-holes, as this was the middle of the nesting-season, but, as the entrances were only raised four or five feet above river-level, there must have been a long ascending passage in each, leading to the nest, in addition to a back entrance, if the owner, with her fledglings, were to escape being caught by the rising water and drowned during a high flood.

We passed a place upon which two old mango-trees were seen growing in the bush upon the river-bank. This was evidently an old settlement, long deserted. Our men told us it was known to the river people as Irishman's Choke, but could give us no explanation as to the origin of the extraordinary name ; whether, at some period in the remote past, an Irishman had choked someone there, or been himself choked, and all the former inhabitants had died out, at a period beyond the memory of anyone now living along the river.

Making our way up a broad, muddy, sluggish stretch of river, my poleman, who was in the bow of the dug-out, suddenly went overboard, like a flash, without the slightest warning. For an instant I thought he had

either gone off his head or was on suicide intent, but I was soon reassured when he appeared holding a large river loggerhead turtle in both hands. This beast is the most hideous and the fiercest reptile on land, sea, or river in all Middle America. Unlike its sea relative, which grows to an enormous size, it seldom exceeds 2 ft. in length. The head, diamond shape, like that of a venomous snake, is black and yellow, and the jaws, which are shaped like a parrot's beak, can shear easily through a piece of stick $\frac{1}{2}$ in. in diameter, or through a human finger, should one come their way. They possess tremendous power, as the animal's favourite diet consists of hooties, or river-snails, the tough winkle-like shells of which it cracks as one would crack pea-nuts. The nose is long and pointed, and the neck, covered with loose folds of blackish, shiny skin, can be shot out like a striking snake. The eyes—round, black, close set, and surrounded by bright yellow circles—are perhaps the most remarkable features of the reptile, for they are the coldest, fiercest, most malignant eyes of any creature in the world. These reptiles lay their eggs, not in the sand, as the floods would surely wash them away in this river, but high up on the clayey banks of the stream. They live in holes in the river-banks, the entrances to which are beneath the water, and it is by stretching stout nets over these holes that they are best captured, though the nets will not long retain them in captivity, for their parrot-like beaks can cut through the toughest twine with ease. They have, in fact, throughout their whole life but a single enemy to fear, the otter, or water-dog. This fierce little beast tackles the loggerhead on the river or lagoon bottom, catching him by the tail and towing him ashore, where he turns him on his back. He takes care to avoid the extensile neck and snake-like head, armed

with its terrible jaws, which attach themselves like a vice to anything they seize hold of, and never let go. Starting at the tail end, he calmly proceeds to eat through the living loggerhead, from behind forwards, till it dies of exhaustion and loss of blood. I would not have tackled this loggerhead in the water for untold gold, but my poleman seemed to think nothing of the feat, and secured his prize in a large gunny-sack, in the bow of the dug-out. The next thing to draw our attention to the reptile was a howl from another man in the bow. It had rapidly eaten its way out of the gunny-sack, and grabbed at his leg, fortunately only securing the lower part of his loose breeches. I hit it a hefty clip over the head with a machete, which would have killed any other animal, but it had no effect on that skull of nearly solid bone, merely infuriated the loggerhead, which promptly went for me, and peace was only restored by the owner tying it up tightly with a piece of rope, though we had not as yet heard the last of it. I asked the owner why he did not slaughter it at once, and have it for supper, but he explained that he wanted to take the animal home, as cleaning it and cooking it were dirty and troublesome jobs, which he was reserving for his wife.

Early in the afternoon, we arrived at the mouth of Indian Creek, up the narrow and tortuous channel of which we turned. Every few hundred yards were swift runs, over which the dug-outs were hauled with difficulty, and here and there, where great trees had fallen across the creek, completely blocking the channel, we had to cut a pass through with axe and machete, just as one has to in the bush, when a great, branching tree-trunk, covered with air-plants, orchids, and liana, falls athwart the trail.

Night found us in the creek, and we had to make

camp by cutting a small clearing in the bush for the tents, on the bank. It was a most uncomfortable camping-ground, as the place swarmed with large, savage mosquitoes, and we soon found ourselves covered with ticks, against which we had taken no precaution, for one does not, as a rule, find them in places where there are neither cattle nor horses. The men said that they came off tapirs, which abound along these swampy banks, though how a tick could attach itself to, and draw blood from, the elephantine hide of a tapir was a puzzle to me. I was just about to fell a little palm-tree with my machete, when one of the men pulled me back, and showed me, by the light of a lantern, a small greyish snake about 4 ft. long coiled round the stem. It was exactly like a coil of liana, for which I mistook it, and not thicker than my little finger. It was an extraordinarily sluggish beast, apparently not poisonous, and a new variety to me.

Next morning we made an early start, poling and paddling up the stream, which ran very rapidly over a beautiful clear sandy bottom. We passed, in several places, great limestone cliffs, rising perpendicularly from the river-bank, and in one of these discovered the entrance to a large dry cave, which we stopped to explore. The opening into this cavern was perhaps 12 ft. high, and gave on to a large dry chamber, the floor of which was covered with innumerable hootie-shells. Further in, we found the skulls and some of the bones of a jaguar, a peccari, or wild pig, and a medium-sized alligator. The bones were all a good deal eroded, and had evidently been there for many years. The association in death of these three animals was an extraordinary one, which we were entirely unable to explain. The cave continued on for about 100 feet, and then ended suddenly in a narrow passage, not high

Our Camp up the Sibun River

Possibly the Largest Tree on Earth

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enough to allow of one's standing upright within it. We disturbed flocks of huge bats, which fluttered about our heads and the gasoline lanterns. This cave, being dry, well lighted, and near a good water-supply, would have been admirably suited for a dwelling-place, but, though we searched the floor most carefully, we were unable to find a single potsherd, or other evidence of man's occupancy.

Shortly after leaving the cave, we arrived in the dug-outs at a vast arch, through which the river emerged from the side of a limestone hill. It was indeed a gloomy-looking entrance. Conical stalagmites, hanging in serried rows from the broad arch, gave it somewhat the appearance of some vast mythological monster's open mouth. On entering beneath the arch we passed rapidly from the vivid colours, intense heat, and innumerable noises of the tropical bush to a dead, cold, awe-inspiring silence, broken only by the mysterious whispering of the water in its rapid flow through this great system of underground chambers and passages. The united lights of our three gasoline lamps and electric torches served only to make the darkness more obscure. We explored one great chamber, not far from the entrance, which debouched from the main tunnel, not unlike a vast, roofed-in bathing-pool. But there was something repulsive and threatening about the subterraneous rivers and lakes, altering the sound of the human voice, and making even our unimaginative polemen speak in whispers, as if afraid of disturbing the repose of the host of spirits one felt might haunt them. Fantastic shapes of men, animals, and grotesque mythological beasts were discernible in the water-worn rock, by the dim lantern light, and one almost expected to see the slimy head and goggle eyes of some terrific saurian survivor in this silent sea of a past age of

the world. We soon shoved back from the great chamber into the main current, along which we were able to pole most of the way, making no detour into openings or passages, as the possibility of getting upset on a submerged rock, and precipitated into the dark waters, did not appeal to any of us. It took us twenty minutes to make our way from the entrance to the exit of this cavern, and we noticed, some time before arriving at the arch through which the river entered, shoals of large mullet-like fish flashing about the bottom, clearly visible in the light from our gasoline lanterns. This cave can never have been used for human habitation, as, apart from the fact that the few sand bars and rocky promontories where it was possible to land were in Stygian darkness, the tunnel must, during high floods, have been filled nearly to the roof with water, for sticks, tree-trunks, and other flotsam had been caught in rocky crevices at almost every level up to the roof.

On emerging from the dark cave, we continued on up the river—here, narrow and swift running, with a fine clean bottom of sand and pebbles. We passed a number of great limestone cliffs, and soon arrived at the mouth of what is known as the "light cave."

This is entered by an immensely broad archway, from the centre of the roof of which depended what looked like the head and part of the body of a great snake, in the very act of diving into the water beneath, which must have suggested to the highly superstitious Maya their great feathered serpent god, Cuculcan, about to emerge from his sanctuary. On entering beneath the arch, we found ourselves in a vast rock cavern, perhaps 600 ft. by 100 ft. The beautifully arched roof was covered with brilliant yellow, green, and red stalactites, which, against the mauve background of the cave's roof, were very

SIBUN RIVER. ENTRANCE TO LIGHT CAVE.
DUG-OUTS SEEN ON THE RIVER AS IT ENTERS

SIBUN RIVER. ENTRANCE TO DARK CAVE

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beautiful, and almost gave one the impression that the colours must be artificial, and not, as they actually were, natural, and probably due to some kind of moss or lichen growing on the stone. The floor was of fine sand, through which ran the bed of the river, and the walls were polished to a beautiful snowy whiteness by the scouring of the sand-charged water. A perpetual dim twilight pervaded this great chamber, a gentle breeze whispered through it from the opposite entrance, and there was nothing about it of the repulsiveness of the dark cave.

Passing through the vast antechamber, we found ourselves in a rocky tunnel, and soon emerged, through a second arch, into the light of day. Above this point, the stream was very difficult of navigation, and blocked by a number of fallen trees, so, as we had carried out the purpose of our mission, and ascertained definitely that this region had not been occupied by the Maya of the Old Empire, and probably only to a very limited extent by those of the late New Empire, we determined to bring our voyage to a conclusion, and return to Belize.

On the way down, we camped on a rocky island in the river, where, amongst the sandy patches, we noticed a great number of deer slots, but, as the interior of the island was covered with a dense scrub, Clive-Smith did not feel inclined to go after them.

During the night the loggerhead escaped. The men tied him to a tree by a piece of thick twine, passed through a hole bored in the edge of his carapace, and so close to the tree that he could not run round to bite it through. He was at first imprisoned in a large tin can, but made such a horrible drumming in his efforts to escape that no one could sleep. He must have tugged on his moorings with extraordinary persistence all night, as his webbed, claw-armed feet—no bad excavators—had dug a great hole in

the hard soil. Patience was in the end rewarded, however, and he managed at last to wear the string through, against the edge of the hole in his shell, and make his escape—curiously enough, within a few hundred yards of the spot in which he had originally been captured, and who knows but that the smell of home may have doubly armed his claws in making his last bid for freedom.

My sympathy, I must admit, went with him, notwithstanding the blow on the head with a machete which I had administered early in his captivity, as he had put up a gallant fight, and the owner's wife would be saved the " dirty job," reserved for her by her loving husband, of cleaning and cooking him.

We camped, on the second night, at our old sandy bay, and found the sand covered with the tracks of some dog-like animal, too large for those of a fox. We came to the conclusion they must have been those of a tame dog gone wild in the bush ; not an uncommon thing to happen, when a solitary old squatter and hunter dies, and his hunting-dogs are left to forage for themselves.

We reached Belize without further incident, our field season completed, and, though this last expedition had, from an archæological point of view been almost unproductive, we felt amply rewarded by the extremely important discoveries which it had been our good fortune to make at Chumuchà.

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